MOTOR AGE

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CUBAN ROAD RACE HONORS WON BY DEMOGEOT



AVANA, Feb. 14-Special cablegram-All the circuit chasers except Lancia, Cedrino and Battista, who sailed Saturday direct for New York, and Senator Morgan, who remains to secure a deed for the plantation he has purchased, sailed for Miami today not very well pleased with the reception they received here, which was marked all through with inattention. The committee left the newspaper men to shift for themselves and to depend upon the local scribes for hospitality. Charles Cook, of the Darracq company, was utterly neglected and returned Monday. C. H. Tangeman was not even given an automobile to go to the assistance of Cedrino and Lancia's mechanic, after their accidents. The association's members, for the most part, were utterly selfish, neglecting to even furnish visitors and representatives of the press with automobiles to go over the course on a tour of inspection, and to reach the starting point of the race.

Such treatment as this came as somewhat of a surprise to the visitors, who had heard such tales of Cuban hospitality that they were expecting the key to the city to be turned over to them. The newspaper men had their feelings hurt by the snub they got, but they could have forgiven this in a measure had it not been for the Tangeman incident.

FOUR START IN RACE; ONLY ONE FINISHES

Havana, Feb. 12—Special cablegram—Demogeot, Ormond's speed king, driving the 80-horsepower Darracq that Hemery piloted to victory in the Vanderbilt race, won the Havana cup today, covering 217 1-8 miles in 3 hours 38 minutes 18 4-5 seconds and averaging 59.76 miles per hour. Bernin, Lancia and Cedrino were the other starters.

Bernin, who completed half the race in 2 hours 45 minutes 19 seconds, was runner up, while luckless Lancia again met misfortune while in the lead through losing his mechanic in rounding a turn. Cedrino, the other Fiat driver, also came to grief through the upsetting of his car while negotiating the double S turn beyond Artemisa.

Demogeot lost 5 minutes at the start through his magneto non-circuiting and he also had trouble on the return stretch owing to his gears not meshing well. The time of the first stretch of 54 37-100 miles was 54 minutes 26 seconds; second stretch, 51 minutes 6 seconds. Bernin led to San Cristobal in 51 minutes 4 seconds and

started on the return at 12:15 o'clock. He had trouble with the toggle joint of his driving shaft and was pushed over the line. He lost 13 minutes 26 seconds making repairs and to top it all experienced tire trouble. These delays proved fatal to him, for it took 1 hour 54 minutes 15 seconds on the second stretch, so he was declared out of the race as he had failed to come within the 90-minute time limit. With a clear field ahead, Demogeot completed the third stretch in 58 minutes 9 seconds and the fourth stretch in 54 minutes 37% seconds.

Lancia started at 10:03 and at once followed his usual reckless custom of tearing things loose. He rounded the curve and crossed the railroad track at the grand stand at terrific speed in marked contrast to the cautiousness of the others. Lancia's speed carried him into the lead and he reached Artemisa—32 miles—in 30 minutes. Bernin was right after him in 34 minutes 30 seconds. Cedrino was with him, while Demogeot was fourth in 37 minutes, which included the time he lost at the start. At Las Mangas, beyond



DEMOGROT, WINNER OF THE CUBAN RACE



COLLECTIVE GROUP OF VARIOUS MODES OF CONVEYANCE THAT MAY BE SEEN IN THE STREETS OF HAVANNA AT ANY TIME

Artemisa, Battista, Lancia's mechanic, while oiling the engine rounding a curve, was thrown. Lancia at once stopped and quit the race in order to assist the mechanic, whose final injury proved only a slight cut in the forehead, though he had been knocked senseless.

Cedrino started at 10:06. He drove more cautiously than his mate, but in rounding the double S curve beyond Artemisa he struck a tree and was rendered senseless and also badly bruised. The mechanic, Menoso, was bruised, but not seriously injured. Both men were taken to the Guanajay hospital. The wild stories that were afloat that Cedrino had been internally injured proved untrue.

The \$15,000 three-cornered match race started after Demogeot had begun his second run. It was a big betting affair and the distance was one round of the course. Julio Rabel's 30-horsepower Clement, driven by Dessasois, won in 2 hours 4 minutes 5% seconds. Louis Marx's 40-horsepower Mercedes, driven by Birk, was second in 2 hours 14 minutes 2 seconds and Juan Arguelles' 30-horsepower Mors, driven by Blint, third in 2 hours 35 minutes 57 seconds. The winner averaged 53 miles an hour.

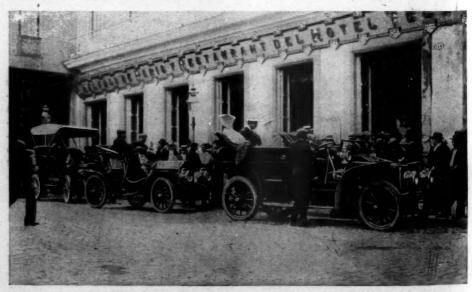
C. H. Tangeman returned to the Telegrafo hotel tonight, bringing with him Cedrino with a bandaged head and badly bruised otherwise. Tangeman describes Cedrino's accident as having been caused in a peculiar manner. Menosa, while pouring oil, spattered some on Cedrino's goggles. The latter removed them to wipe them just as he struck the S curve.

Charles Harrah, a millionaire American sugar planter, acted as Demogeot's mechanic, which added to the popularity of the Darracq victory. The day was very hot but the stand was crowded with the wealth and fashion of Havana. It made a brilliant scene, for President Palma, the mayor and other high officials were present, while a magnificent municipal band played. Thousands lined the course for a quarter mile each way from the grand stand, the crowds being kept in check by the rural military guard. Hundreds of carriages and automobiles were parked behind the south stand, while the field back of the north stand resembled a county fair.

RACE PUT OVER A DAY BECAUSE OF A STORM

Havana, Feb. 11—Special cablegram—All the Havanese and circuit chasers were up at daylight today for an early start for the course only to find rain, something for which no calculations had been made at this season. So it was necessary to postpone the contest at least until tomorrow

and maybe longer. Should the weather clear there may be loope for the race tomorrow. The Fiats were fitted with nonskid tires but the Darracq and Renault were not so fortunate and C. H. Tangeman declared he would not race his cars with his opponents at such a disadvantage. Those acquainted with road conditions said that the rain should leave the Calzada a skating rink of mingled oil and mud. Thousands of the citizens went out to the course and over 100 or more box seat holders. The rain was a bitter disappointment to tens of thousands to whom Sunday is the only holiday. It is clear tonight and the chances are for a fine day and a fast course tomorrow. It was not a shower but real rain that blotted at once all the hopes of the senoras and senoritas for a chance to display the glad rags they had been so long preparing for this gala outdoor festival of the year.



START AT HOTEL TELEGRAPO FOR TRIP OVER THE COURSE



MIXED CROWD OF FOREIGNERS AND NATIVES LINED UP AT THE FINISH OF LAST YEAR'S ROAD RACE

The Havanese, hardly up enough in the technique of the racing game to appreciate the full sporting value of a four-handed fight between such cracks as Demogeot, Lancia, Cedrino and Bernin and such high-powered flyers as the Darracq, the two Fiats and the Renault, have complained at there not being more entries. They now have less cause for complaint on this score, for three members of the association have made a match race for big money to be run in connection with the main contests, and there promises to be big outside betting on the outcome.

Louis Marx has named his 40-horsepower Mercedes, which competed last year; Julio Rabel, his 30-horsepower Clement-Bayard, and Juan Aguello his 30-horsepower Mors. The match will be for a sweepstakes of \$15,000, each contributing \$5,000. The race will be for two stretches, or 108.95 miles, and will be started after the big

four are sent away from Camp Columbia on their second and final round trip, so that there ought to be something of a whirlwind finish.

In a way this match will be a good thing for the carnival, for the big race has only four starters, and this auxiliary event will stir up Cuban blood far more than even the annual contest in which Lancia, Cedrino, Bernin and Demogeot will clash tomorrow.

VISITORS INSPECT

Havana, Feb. 10—The government official report of the measurement of the course was made public today. The start will be at Senor Campo's estate, about 2 kilometers east—toward Havana—of the grandstand at Camp Columbia. The finish will be in the town of San Cristobal at a

point 250 meters east of the 92-kilometer post. To quote exact figures, the length of the course is 87.50922 kilometers, or 54.375-604 miles, which, covered four times, gives a total length of 350 kilometers, or 217.502415 miles. At the end of the first stretch the cars will be held up at San Cristobal until after 10 o'clock—the start being at 8 o'clock—before being sent back. After that 90 minutes will be allowed them to complete a stretch, though they will be started sooner if they all arrive before that, as is certain, barring accidents.

The members of the association gave the visitors a ride over the course today, some eight or ten cars constituting the exploring caravan. Your correspondent was given a seat in Louis Marx's 40-horsepower Mercedes along with Dr. H. T. Laine, of the committee; M. A. Coroalles, engineer of the province of Havana; George H. Tangeman, and S. M. Butler.

After the start at the Campo estate was passed the grand stands at Camp Columbia were encountered. They are located just west of the electric car crossing and face one another. The north stand, with its back to the camp and the ocean, has a twostory tower for the official timers and the press. The stands have in all 250 boxes, seating six each, at \$20, at either end; \$5 is charged for parking spaces along the road. All vehicles approach the stands from the south without entering on the road at all and are parked in the big field behind the south stand. Across the track at the railroad crossing is a bridge, for no one will be allowed to cross the course.

The stands command a fine view of the course for half a mile to the east. Directly behind the north stand is a lime kiln, with the fantastic name of Caleras El Recreo de las Tres Resas, which means the recreation ground of the three roses,



SOUTHERN CIRCUIT CHASERS LINE UP FOR THE USUAL PHOTOGRAPH

the place in former days having been a gay road resort.

Telegraph and telephone wires connect the official tower with all points on the course. Announcement will be made at short intervals of the progress and incidents of the race, first in Spanish and then in English.

After a brief stop at the stands we sped away toward Guanajay and San Cristobal. The oiling of the course had not changed much the whiteness of its limestone surface. The buzzimite mixture of crude oil, asphalt and water had been made rather thin to make the road absolutely dustless throughout. In some few spots

the cars whisked up some dust, but the clouds were not thick enough to dangerously obscure a car in the lead. It is said that another coating of the mixture will be put on before Sunday. For racing purposes the course will be practically dustless, it is announced.

As the Mercedes whirled us along the watch showed 42, 43 and 44 seconds between the 1 kilometer posts, which figures out from 65 to 70 seconds for the mile, Senor Coroalles yelled in my ear-the siren was shricking most of the way-some interesting facts about the Havana roads, their maintenance and the traffic rules. The province of Havana has some 250 miles of stone roads. The Calzada is by no means, he says, the finest. There will be added the coming year 170 more miles and in the adjoining province of Pinar del Rio enough to bring the total up to 300 miles. The system calls for separate departments for maintenance and repairs. The former sees that the general condition of the road is maintained and that the gentle arch of the surface is preserved. The arch is gentle, said the engineer, so that vehicles shall use the whole width of 161/2 feet and not merely the crown.

Every 4 miles there is a road house, a double frame dwelling, in both of which



ENTRANCE TO HAVANNA HARBOR AFTER PASSING IN

dwells a road maker and his family and mule. Each road maker is responsible for his own stretch of 2 miles. The road has roadmasters in command of sections of 15 miles. The road officials have full police charge of the road. They may arrest and they may fine.

The weight of vehicles is limited to the width of the tires and there are frequent scales to determine this. All vehicles must carry lights at night and must always keep to the right. Every vehicle bears a license number. A road official noting a violation of the regulations reports the number of the offender to a magistrate and names a fine, which the police collect.

Senor Coroalles says he alone levied \$6,000 in fines last year in the course of his inspection trips over the road. Senor Coroalles is a Troy Polytechnic graduate of 1896 and his assistants are all graduates of American scientific schools. By next year there will be several circuits completed, so that the race will be continuous.

The pioneers of last year notice many changes for the better in the enforcement of road rules. On our first visit there seemed to be none. Vehicles turned any old way and to get by them was a guessing match fraught with danger. This year at the signal of siren or horn vehicles

turned quickly to the right. There are no speed limits for automobiles, except 10 miles an hour in Havana, though drivers are expected to slow down going through towns. We made a short stop in Guanajay and then sped on to the finish at San Cristobal. If such a thing were possible, the road runs better on its western half. San Cristobal is a little one-street village, nestling at the foot of the Pinar del Rio mountains. A triumphal arch, bearing the welcoming words, "Bien Venidos," stretches across the street. The entire town was out to greet us and scores of black, yellow and white urchins

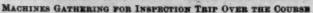
scrambled for the pennies we threw them. An aged negro accumulated a quick aguamiente jag on a peseta Mr. Tangeman gave him and had to be removed by the police for an overflow of hilarity and hand-kissing gratitude.

All the cars rounded up at the Guanajay inn between 7 and 8 o'clock for a Spanish dinner given us by the association. This inn, by the way, thanks to the automobile invasion, has put on airs, a fine second-story dining room and a roof garden, and now calls itself Gran Hotel America. Last year it was a shabby, dirty old roadside hostelry, not at all inviting.

CONTESTANTS DRAW STARTING NUMBERS

Havana, Feb. 9—The contestants and newspaper men met at Senor Conill's office on Wednesday evening for the drawing for the order of the start and the announcement of the final details of the race. Bernin was lucky in drawing No. 1 for the Brokaw Renault. Lancia drew No. 2 for the Conill Fiat, and Cedrino No. 3 for the other Fiat, which will bear the colors of Gustave Bock, of Bock panatela fame. This left Demogeot, the speed king, to bring up the rear with the 80-horsepower Darracq, with







A CUBAN MULTI-POWERED TRANSPORTATION VEHICLE







STEAM ROLLER PUTTING FINISHING TOUCHES ON ROAD

which Hemery won the Vanderbilt race. Demogeot will represent Louis Marx, another tobacco magnate. It was announced that should there be any subsequent entries of visiting or Havana-owned touring cars that they would be started after the others, and that if there were additional entries the starting intervals of 3 minutes might be shortened. At this writing, though there seems to be little chance of any additional entries being made, which will leave the race a splendid four-handed fight of great drivers and crack racing cars, which ought to furnish good sport for the enthusiastic Cubans.

SUNNY, LAZY HAVANA AND ALL ITS SIGHTS

Havana, Feb. 9—In this lazy land of eternal sunshine and everlasting blue skies, with balmy breezes all the time, tempting one to siestas rather than labor, the fatal manana of the tropics quickly enters one's veins and makes even the gentle task of the mildest copy grinding a burden one long hesitates to take up. Today is Saturday and we have been here since Tuesday, yet a brief preliminary cable is all the recognition that I—let me say I, please, it is so much easier—have given that MOTOR AGE readers may ask for at

least a few random jottings of what the circuit chasers have seen and been doing here. I am writing this news letter in my little brick-floored, grated windowed room on the roof of the Telegrafo hotel, with mosquitocanopied iron bedsteads and heavy old-fashioned mahogany wardrobes and bureaus around. me. Through the open door I can gaze out over the pink, blue, and yellow roof tops of the houses, and the green laurels of the Prado esplanade to frowning Morro castle and the Cadenas fortress, not to mention the dinky little La Puerta toy fort guarding the

harbor's entrance to the beautiful blue sea beyond,

I told you all about this roof and its early morning and moonlit evening joys last year and how we boys trotted about on it mornings in our pajamas en route to and from the shower and how we gazed over its parapets at night and viewed the gay life of Central park, the Prado and the Plaza below. There must have been a lot to read the story, for though I raced up from the wharf to secure one of the few roof rooms there were already several newcomers ahead of me on the same quest.

We had a beautiful smooth sail down the Florida coast in sight of land within the keys on Monday on the Shinnecock and an easy voyage over on the big ocean-going steamer Halifax. Memories of the seasickness and horrors of our trip last year over and back on that old tub, the Martinique, were forgotten and the P. & O. people's past sins were forgiven.

A reception committee headed by Senor Brendes boarded our ship from a launch and Senor Conill awaited us at the dock. Joe King, of the Havana Telegraph, was there, of course—God bless him!—to extend the glad hand of welcome and begin his campaign of southern hospitality and unceasing attention, so characteristic of the hearty Alabamian. The newcomers at once

scattered on sight-seeing trips, while we Cuban carnival pioneers spent the afternoon handshaking and helloing with the many friends who had been so kind to us on our former visit. Good old Senator Morgan, of course, received an ovation of welcome. The fame of the great drivers had preceded them. It was they the crowd at the dock had gathered to see. They were eager inquirers for the tall, dark, handsome speed king, Demogeot. Fat, jolly, dare-devil Lancia had 100 questions a minute to answer in reply to Americans and English-speaking Cubans. Cedrino, with his pretty brunette wife, stood modestly to one side. The racing contingent devoted the afternoon to getting their racing cars through the custom house. The next morning the Morro Castle got in with Maurice Bernin and the W. Gould Brokaw's Renault racer aboard. Paul Sartori arrived Thursday without the Vanderbilt racer.

There are places of interest to be visited every hour of the day—Morro castle and Cadenas fortress, the cathedral, the water works, the garrote at the prison, the Colon cemetery, the sugar plantations, the tobacco factories, and what not.

Then there is always a drive to be had over the magnificent Calzada, or military, road, over which the race of Sunday is to

> be run. It extends from Marianao, a nearby suburb, to San Cristobal, 50 miles. It averages 20 feet in width and has a surface as smooth as the finest park boulevard you ever saw. It is kept in park driveway order all the year. The road runs through a well cultivated country all the way; passes tobacco fields, orange groves, sugar plantations, fruit orchards and vegetable farms; skirts mountains at times, and goes between long lanes of royal palaces and beneath overhanging laurel, alamos and other tropical trees. It is an ideal highway for the motorist.



SAMPLE OF THE ROAD OVER WHICH THE RACE WAS HELD

DETROIT SHOW OPENS WITH MUCH ECLAT

List of Exhibitors Numbers Over Sixty-Space Scarce and Building Inadequate for Show Purposes



Detroit, Mich., Feb. 13-Resplendent with its hundreds of electric lights and beautiful decorations, the Detroit Light Guard armory will be the mecca all this week of the thousands from Detroit and Michigan, interested in King Automobile. The exhibition which opened last night is the fifth which has taken place under the management of the Tri-State Automobile and Sporting Goods Association and is by far the most ambitious of the series of annual events which have taken place under its auspices. Over a half million dollars worth of automobiles and accessories are on exhibition, and for the first time the management of the affair has cut loose from the sporting goods features, which have hitherto been regarded as the real drawing cards. That their judgment in this respect was well founded has been amply justified by the attendance Monday night, when 5,000 people paid for admission into the armory.

Detroit people know automobiles as do the people of no other city of a similar size. It is here that some of the largest factories are located, and it is nothing but natural that the show should partake of a most distinctively local character. It is the proud boast of the average Detroit citizen that 60 per cent of the cars built in the United States are the output of Detroit factories and, as would be expected, these cars hold the center of the stage, as well as the outskirts and the wings, for long before the show opened its doors every inch of available space had been collected for, the gallery had been snapped up and even smoking-rooms and

parlors had been appropriated, as well as the basement by the dealers.

The formal opening of the show found practically every exhibit in place, due largely to the military precision with which Secretary Seneca Lewis had planned the arena. The hall had been beautifully decorated with maroon and white bunting, which hung in graceful folds from the ceiling, and as each exhibit arrived from the Chicago show it was speedily wheeled it place. The electric signs were attached by a force of waiting workmen to the sources of the juice, and for what

little carpenter work there was an ample corps of skilled mechanics was provided. The result, was all that could be desired and a new record was set of a show ready for business in every respect at the hour set for its opening. The sole adverse criticism that can be made of the Detroit show is apparent on the first entrance—the hall is too small. Although the largest building available for the purpose in the city, the Light Guard armory copes but pathetically with its problem, and the crowded condition of the exhibits, the aisles and the cluttered condition of affairs generally forces the fact on the mind, indelibly, that Detroit needs a hall for convention purposes and similar uses. The fact that in another year a big music hall will undoubtedly be ready for the show gives but scant satisfaction to the exhibitors this year.

Many of the distributors have been forced to divide different parts of their lines, getting floor space in opposite sides of the hall. The men in charge have been doing a sort of 6-day stunt between their various places of business up to date and are certainly showing the effects.

As might be anticipated, the most imposing exhibits are those of the factory branches. Agents have been hard put to it to lease the necessary space, as the high rental and limited floor capacity have militated against them. The factories have taken the bull by the horn, however, and the Cadillac, Ford, Pungs-Finch, Queen, Northern, Reliance, Wayne, Aerocar, Packard, Carter and other Detroit factories furnished the features of the show. Most of these people exhibit the same line as that on view at New York and Chicago, with booths, signs and decorations complete. A few who did not exhibit at the big shows are also in evidence.

The Cadillac has the largest display, taking up an entire half of the north side of the building. All the firm's models are shown in charge of M. S. Brigham, the firm's new local sales manager, who has just arrived from Boston.

The Ford runabout was the center of attraction from the opening night. While Lou Block, who had charge of the exhibit. at the other shows, is in charge here, Henry Ford himself, Frank Kulick, the race driver, and officials from the Ford factory are much in evidence. The Packard people present but one chassis, elaborately staged and surrounded by a bright brass railing. James Brady, who will handle the firm's retail business in Detroit, announced yesterday that he had sold every one of the twenty cars allotted to Detroit and went to pushing the Peerless and Autocar, which lines he also

The one model of the Aerocar, which is shown in three styles, has scored a distinct success. The firm will soon be ensconced in its big new factory, and the air-cooled motor provokes a lot of inquiry. Early in the show the factory representatives signed an agreement with the Maxwell-Briscoe-McLeod Co. for the purposes of an alliance in the Detroit retail trade. Alex J. McLeod, the manager of the new distributing agency, is a well-known Detroit business man, oarsman, yachtsman and politician.

> the Winton and Woods electric, shows several models. The firm's representatives have made much capital out of some of the model K Wintons, which were delivered to Detroiters 3 months ago and have been in continuous ser-

The Detroit Automo-

bile Co., which features

vice for their new owners ever since. The owners have written testimonials which have helped a lot in the landing of prospects. Another big Detroit agency that is making an imposing display is that of John P. Schneider,

who handles the Olds-

EXHIBITORS AT DETROIT AUTOMOBILE SHOW

Aerocar Co., Detroit. Aetna Life Ins. Co., Hartford, Conn. American Lamp Co., Detroit. Auto Brass & Aluminum Co., Flint, Mich. Automobile Equipment Co., Detroit. Blomstrom Motor Car Co., Detroit. Boyer, Radford & Gordon Tank & Pump Co. coe Mfg. Co., Detroit. Cadillac Automobile Co., Detroit. Calnon & Dennis, Detroit. City Machine Co., Detroit.
Cramp & Sons, W. M., Philadelphia, Pa.
Detroit Automobile Co., Detroit.
Detroit Automobile Mfg. Co., Detroit. Detroit Steel Products Co., Detroit. Edmund & Jones. Detroit. Firestone Tire & Rubber Co., Akron, O. Ford, John, Detroit. Ford Motor Works, Detroit. Foster, O. G., Cleveland, O. George, Edwin S., Detroit. Grant Brothers, Detroit. Gray & Davis, Amesbury, Mass. Hayes Mfg. Co., Detroit. Herz & Co., New York. Hyatt Roller Bearing Co., Harrison, N. J. Hydraulic Oll & Storage Co., Detroit. Jackson Automobile Co., Jackson, Mich. Jones Speedometer, New York. Maxwell-Briscoe-McLeod Co., Detroit.

Metzger, William E., Detroit. Michigan Bolt & Nut Works, Detroit. Michigan Steel Boat Co., Detroit. Michigan Storage Battery Co., Detroit. Monnier Cycle & Automobile Supply Co. Motor & Accessory Mfg. Co., Detroit. Motor Car Co., Detroit. Northern Mfg. Co., Detroit. Olds Motor Works, Lansing, Mich. Pungs-Finch Automobile Co., Detroit, Rapid Motor Vehicle Co., Pontiac, Mich. Reliance Automobile Co., Detroit. Reo Motor Car Co., Lansing, Mich. Salsbury Tire Co., Owosso, Mich. Schneider, J. P., Detroit. Schug Mfg. Co., Detroit. Soules Motor Car Co., Grand Rapids, Mich. Splitdorf, C. F., New York. Standard Automobile Co., Detroit. Standard Oil Co., Detroit. United Mfg. Co., Detroit. Walker Motor Co., Detroit. Warner Instrument Co., Cleveland, O. Wayne Automobile Co., Detroit. Wayne Automobile Co., Detroit.
Webb Mfg. Co., New York.
Weber, W. H., Detroit.
Welch Motor Car Co., Pontlac, Mich.
Wheeler Mfg. Co., Detroit.
White Garage, Detroit.
Young & Miller, Detroit.

mobile, Pope-Toledo and Columbia. M. Schneider was one of the most industrious of the 6-day pluggers. The Olds was in one corner and the rest clear across the hall. Among the cars from Michigan, but made ontside of Detroit, the Buick, Welch and Jackson have many admirers. The Buick two-cylinder touring car is one of the most talked of. A new agency will handle this car, the partnership being composed of the Grant brothers, George and Charles, well known in the old days of bicycle racing. The Grants will also handle this territory for the Thomas Flyer. The Reliance has one of the largest exhibits in the show. This concern, recently reorganized, has gone into the commercial vehicle trade with a vim. It is still making its standard model touring car, but is featuring the delivery vehicle and truck, reversing the usual order of things. F. O. Paige has succeeded E. E. Thrall as president, and S. O. J. Mulkey is now secretary and general manager.

Of course, the Detroit show is an agents' exhibition and the general purpose the maintaining of interest in automobiling rather than the immediate results in the sale of cars. Sales were reported in numbers today, however, and all the dealers agree that never in the history of Detroit were there so many eligible prospects as have been already discovered in the 2 days of the present show.

AFTER GOTHAMITES OVER GASOLINE RULES

New York, Feb. 12-Considerable excitement has been caused in New York garage circles by the sudden decision last Friday on the part of the New York city fire department to revoke at once all licenses for the storage and sale of gasoline in garages where the law governing such storage is not rigidly enforced. There are in New York city more than 200 buildings in which cars are stored and gasoline is kept on sale, and it is asserted that in more than half of these the ordinances are openly violated. Forty-eight garages were notified by George E. Murray, superintendent of combustibles, that he would not reissue to them licenses permitting the storage of gasoline. The applications for licenses had been in Mr. Murray's hands for several weeks and in the meantime the garage owners had been handling and selling gasoline under a hold-over provision of the law. The greatest cause of complaint on the part of the bureau of combustibles is that most of the buildings in which gasoline is stored are heated by stoves or in some other way than that permitted by the law. The law says garages must be furnished with heat from apparatus in an adjoining building. In a number of cases it appears that the provision of the law which provides that gasoline must be stored in a tank underground, had been disregarded. The charter provides a fine of \$50 for a violation of the gasoline law, and an additional fine of \$5 for each day the violation continues. So it will be seen that the garage keepers are up against a situation which is not by any means a laughing matter. It is also provided that a fine of \$500 may be collected from any insurance company which insures a building in which these violations occur, while a refusal to issue a license nullifies any policy now in force. These measures will undoubtedly cause the offending dealers to obey the law, for being unable to obtain insurance would be a shock to even the most careless.

Most of the newer garage buildings on upper Broadway escaped criticism by the bureau of combustibles. The garages occupied by the Panhard, Hol-Tan, Smith & Mabley, Decauvile, Lozier, Pope, Ford and Locomobile companies are said to comply with all the provisions of the law and have had their licenses renewed. It is also said that in the new building of the Automobile Club of America on West Fifty-fourth street, all the provisions of the law are being complied with. Under the laws the police can be called on to stop the sale of gasoline in garages where licenses are not held. And that is why the garage keepers of New York are looking for a strenuous week. It will probably result, though, in a victory for the officers seeking to enforce the law.

REO MOUNTAINEER MUD-BOUND AT GALLUP, N. M.

Gallup, N. M., Feb. 8—With an American flag still waving to the breeze on either side of the dashboard, the transcontinental automobile, the Reo Mountaineer, is held up by the adobe mud of New Mexico and the eastern trip will be prolonged several weeks as a consequence. Neither man, beast nor automobile can progress through the mud since the snows of last Sunday and Monday nights—snows that melted as soon as the sun's rays reached them and covered the already soft ground with inches of water.

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One of two things will be necessary before further progress can be made by automobile—either a cold snap will freeze the roads solid or continuous days of bright sunshine and wind will eventually dry up the bottomless mud that predominates all through the section of New Mexico lying between Gallup and Albuquerque.

The battle put up for the past 2 weeks against the mud has been a most strenuous one and progress was painfully slow, yet it was possible to occasionally move forward and a few miles were made each day. Now even that is impossible as the car goes in to the axles even in the higher places, while the mud flats are simply impassable, covered over as they are with several inches of water under which is that sticky doby mud that seems to be impervious to water and prevents the moisture from sinking into the earth

enough to admit of the surface drying up.

All day Sunday, the little 16-horsepower machine struggled gallantly against overwhelming odds, Fassett and myself at work with shovels and canvas strips, building a roadway, or bending our backs over the windlass cranks as we, inch by inch, hauled the good car toward distant New York. Now even that slow progress is denied us and we are actually laying off waiting for conditions to improve, the first time we have had to do anything of this kind since the week we spent in Wyoming awaiting the going down of the waters in Bitter creek enough for us to ford with our automobile. If we get no more snow or rain we may be able to again hit the trail in a few days. If rain and snow continue it may be a month before we can make a fresh start eastward.

Teaming of all kinds has stopped, even the hardy Indian ponies hitched in bunches of four and eight to a wagon being unable to haul wool and Navajo blankets from the reservation to the trading posts in the towns along the Santa Fe railroad. The mail is carried on horseback and is most unreliable at this period of the year.

Nothing much can be done, for old settlers tell of how at one time there was an



effort to build stone roads through these parts and how the stone sank out of sight in the doby mud the next spring after the stone road had been constructed. It was tried again with brush and boards underneath the stone but even this did not keep the road from disappearing the following rainy season. There is nothing to do but wait more favorable weather conditions in company with numerous prospectors, miners and lumbermen who are unable to strike out in the country with their teams until the soil dries out.

To illustrate that the automobile is able to go anywhere a team and wagon can. I want to tell a story of last Saturday's happenings. We ran out of gasoline. Walking to town we purchased a supply readily enough but to hire a vehicle and team to cart it 14 miles out into the country was a different matter. After considerable inquiry and bargaining we secured a Mexican with a team of large bronchos and started. By constant whipping we eventually arrived within 2 miles of the automobile, then in crossing an arroyo the wagon broke and we had to walk. The sides of the arroyo-and it was one we crossed in the automobile-were so steep that when the team descended the end of the pole struck the further bank and snapped off, the wagon hit the horses' heels and there was several kinds of trouble for us .- PERCY F. MEGARGEL.



PROBABLE EFFECT OF AN OPEN AIR SHOW

HE proposition to hold an open air automobile show next fall will be smet with enthusiasm on the part of some and with opposition on the part of others. If a poll were to be taken it is probable a large majority of the makers would vote against such a scheme, but as long as the flat announcement of the affair has been made it is likely the manufacturers will turn in and support the venture.

Whether this show, announced open to licensed as well as unlicensed makers, will be supported by licensed and unlicensed makers, as long as the unlicensed association is promoting the affair, remains to be seen. Such a show will have to be held as early as September to be assured of decent and dependable weather, and if held as early as this it will mean that 1907 models will have to be ready for exhibition and demonstration at this date. If one independent maker goes into the fall show all will have to follow suit; if the independents take kindly to the proposition the licensed makers will have to either join them in the open air show or hold an early show of their own. Any other course would mean that the independents would be in a position to secure early contracts and to make early deliveries, which would be to their own advantage and to the disadvantage of those who did not exhibit early, unless the demand for cars should prove so great as to make the entire supply of the country inadequate.

The fall show has its advantages and its disadvantages. It will be a means of exhibiting cars in their natural surroundings rather than in a building, but it will also come at a time when the entire 1906 output has not been disposed of to the buying public, for the past fall's trade proved there was a good market even up to September.

The fact that the 1907 show dates in both New York and Chicago have already been announced for January and February, respectively, will tend to complicate the show matter more than ever, as long as the open-air affair has been definitely announced, for it must be admitted that the latter will take the edge off the for-

mer and make them at best local exhibitions and in no manner trade affairs, such as the manufacturer naturally is inclined to support. There can be no prospect that the promoters of the New York and Chicago shows will recede from their intentions to again promote shows, so it will be necessary to go through the fall show scheme and then repeat the event in the winter in the two big cities of the country—New York and Chicago.

There can be little prospect that the licensed and the unlicensed makers will see the matter in the same light and it is almost improbable that the former will participate in the show to be promoted in the open air by the latter. Then it will be up to the licensed association to do something to offset the open air show of the independent organization and to show the goods of its members to the country quite as early as the others.

This means complication all along the line, with a possible widening of the breach that now exists unless the Selden patent suit shall have been settled in some manner before the matter goes too far, which is hardly among the possibilities. It is not among the impossibilities that the Selden patent and the show question will tend to disturb trade affairs and to possibly start so fierce a competition between the members of the two factions that the entire trade will find itself in such a disastrous mix-up that the automobile business will receive a severe blow, not only from the manufacturers' standpoint, but from the position of the agents, of whom there are thousands in this country who have vast sums of money invested.

It behooves the manufacturer of automobiles and the manufacturer of sundries and parts to stop and begin a plan of reasoning before the entire industry is plunged into disaster, which is not among the impossibilities or the improbabilities. The automobile has furnished a fertile field for the maker and the agent, to say nothing of hundreds of people who have become indirectly interested, and it is unwise to take the least possible chance of in any manner ruining this field, that today is only becoming settled, and is, in fact, in no advanced state of equilibrium.

There is little prospect that the licensed and the unlicensed makers will ever be close to one another until the Selden patent suit is disposed of, notwithstanding the presence of the National Association of Automobile Manufacturers, of which most independents and licensed makers are members. There might have been at one time a possibility of bringing these factions closer together, but there is little likelihood of this now, so that each side must consider not what is best for itself but for all concerned if the stability of the industry is to be maintained.

MOTORPHOBIA NOT ALWAYS PROFITABLE

THE Chicago Tribune, as the chief exponent of motorphobia in the west, has for nearly a fortnight snarled and snapped at automobiles and automobilists to the tune of anywhere from one to three columns a day. Let it be known, however, that the amount of matter devoted to roasting automobilists and automobiling was in inverse ratio to the amount of automobile advertising the Tribune received during the week of the automobile show.

A year ago the Tribune led all Chicago morning papers in the amount of automobile advertising; at this time it is at the bottom of the list. The answer is its attacks on automobilists and automobiling. It should be stated that, while there have been infractions of the speed regulations and a few accidents, other morning papers told the stories from a news point of view and without resorting to happenings a year old to pad out a story sufficiently to warrant the copy readers writing display heads for it.

The fact that the other papers did not

and that the Tribune did go out of the way to stretch the simplest story and even to go beyond the facts into untruths, and the further fact that the other papers received an abundance of automobile advertising and the Tribune did not, is sufficient to show the Tribune's side of the case in glaring light, notwithstanding that paper's proud boast that automobile advertising cannot buy the paper's opinion. Possibly the Tribune's opinion cannot be bought by advertising, but its opinion has evidently been warped by the absence of advertising.

Motor Age has repeatedly called attention to the fact that the papers of Chicago persistently overlooked the fatalities that are caused almost daily by trolley cars, which travel faster than most automobiles. The Tribune has at last turned its attention to this evil, and if it is as persistent in hammering the trolley as it has been the automobile it will find little time for any other pursuit. It's attacks have been continuous of late.

After all the last part of Percy Megargel's trip isn't what it was cracked up to be.

Even the New Yorkers admitted Chicago's show looked better than the Madison Square garden affair, with its child's coffin effect.

The recent events at Ormond and Cuba make it plain that racing rules can stand a whole lot of overhauling and still not be materially injured.

Let it be hoped the next Chicago show will be minus a gaping hole in the center of the main floor with steps leading to an out-and-out plain and extremely cheaplooking booze joint.

The Cuban road race, which was heralded as an affair with international seasoning, was so tame that, except for the fact that prominent drivers took part, it is hardly worth mention. It will take a good deal of fine press work on Senator Morgan's part to take away the bad taste this affair left.



THE WEEK IN BRIEF

Cuba's meet somewhat of a fizzle, only four starting and one finishing in road race, won by Demogeot, while short distance events are postponed.

Chicago exhibition comes to an end, attendance showing an increase of 50 per cent, daily average being 24,000, according to Manager Miles; same dates for next year.

Detroit's big little show has successful opening, Light Guard armory being filled with over sixty exhibitors.

William K. Vanderbilt, Jr., cables from Europe that France has consented to allow Vanderbilt cup race to be run in America next fall.

English critics predict that within a few years Americans will start; invasion of Great Britain with cars of excellent workmanship.

Percy Megargel stalled at Gallup, N. M.; will have to wait for roads to dry up before continuing transcontinental tour.

Automobile Club of Great Britain heeds trade tip and sets its Tourist trophy race for September instead of May.

Independents plan a huge outdoor show to be held next fall.

From the amount of advertising the Cuban road race received it should have produced at least two finishers.

The demonstrators from out of town who were yanked up by the Chicago police have probably come to the conclusion that Chicago needed the money.

If the open air show of the independents is pulled off next fall, as announced, it is pretty safe to assert there will be something doing—on the other side of the fence.

El Recreo de las Tres Resas means the recreation ground of the three roses, but there's not so much poetry in it when it is discovered it is the name of a Cuban lime kiln and not Senator Morgan's new fruit plantation.

John Bull has been given the warning that he is to receive a trade bomb by Uncle Sam in an American popular-priced automobile if he doesn't wake up; and it is stated he will get it anyway. Here is a little hint for the Frenchman, as well.



ENGLISH AUTOMOBILE MANUFACTURERS HAVE BEEN WARNED TO LOOK OUT FOR AN INVASION BY VANKEE MAKERS

CRIES "LOOK OUT FOR YANKEES"

British Critic Sounds Note of Warning and Predicts American Invasion of England Is Sure to Take Place in a Few Years—S. F. Edge Called a Real Missionary

London, Feb. 1—One of the English trade papers will publish the following in its next issue:

"In a recent issue of the Engineer it was stated that the amount of capital embarked in the motor car industry in this country amounted to about \$75,000,000 and Henry Sturmey has taken great pains to point out how exaggerated that estimate is. I think it does not require very serious consideration to enable anybody to agree with Mr. Sturmey, but at the same time when he asserts that the amount of capital sunk in the manufacture of motor cars and motor car materials in the whole world does not total that amount I fear he has spoken in haste. One has only got to look at the immense expansion of the trade throughout Europe and America to feel that \$75,000,000, large sum as it is, cannot possibly cover the amount of capital invested. America alone claims to have \$100,000,000 invested and sanguine as we know Americans are, and inclined to add 0's with prodigality, it is impossible to look at the many of our American contemporary motor-car journals without accepting this as a reasonably fair estimate. The development in America indeed has been so fast and so wide that it would scarcely be possible to accurately realize its extent in capitalized figures; and looking at the tangible results, as evidenced in the late New York shows, of the few years in which the American motor car trade has been evolved, it is difficult to avoid feelings of apprehension lest those developments should quickly reach a stage which will force the American trade to actively seek and compete against these foreign outlets for their productions.

"At the moment American manufacturers, like our own, are so absorbed in the endeavor to meet the demand of their home markets that they have little scope or possibilities for exploiting any other, and in this regard, the very well meant advice which is being extended by various writers to the British trade to seek immediate outlets on the Canadian and other markets, is a counsel of wisdom practically impossible to adopt. Every manufacturing country knows that its own market is its first care and its most important asset, because most profitable. Until the British manufacturer has secured practically what is securable of the British motor car trade, he will not be able to attend to foreign markets in the way which they must be attended to in order to secure commercial BUCCOSE

"The apprehension which I have voiced regarding the result of the manufacturing conditions in America, resolves itself into a race between the British trade for the possession of the British market, and the American trade for the saturation of its own market. I say saturation because there is no possibility of outside competition depriving the American maker of his home trade, simply because of the immense tariff wall behind which he works. It has not, as theorists would tell us, militated against the interests of the American motor car user in the way of prices, owing to the intense internal competition-a fact which any reader can verify by comparing the American prices with our own. But the American manufacturer in every line is infused with the American spirit of bigness. He reduces his cost by standardizing and producing large quantities, and it is very obvious from what we hear, that this process is being calculated and developed in the American motor car trade for 1906. In all probability more cars will be produced this year in America than America wants or will buy, and unless such changes in type and pattern are necessary for the American trade of 1907 as will confine their attention at home we are almost certain to find the American invasion started in earnest. One of the facts which has saved us up to the present has been the state of feverish transition through which the American motor car has been passing during the past few years. As Mr. Franklin, of Syracuse, points out, the American industry has suffered severely by the uncertainty of design. There are cases where a maker has brought out two models in one year, each radically different in design both of which had to be abandoned at the end of that year. It follows from this that a great deal of money has been lost in America. Probably far more there than anywhere else; but the Americans take these things with the philosophy which is not ours, and the lesson they have learned is that which we have also learned -it is better to copy and make money than to invent and lose it. The most popular designs in America are either frank imitations or clever assimilations of European practice. We know that European practice has reached a point in its development which will enable cars to be largely standardized. If the British manufacturer is to secure his market to himself he must do so in the time which will elapse before American practice reaches the same stage. When that happens the American market will be so largely overproduced that prices will break badly unless satisfactory foreign outlets are secured. And in any case in order to secure that outlet we may rest assured that the American imitation of the European car will be placed at our doors at figures which will seriously interfere with the market here in popular priced motor cars. If our own manufacturers by that time shall have made good their position, and shall have secured the confidence and support of the British motorist and investor it will require a very good American or any other car indeed to wean him away. But should this American invasion come while he is still struggling to wrest the British trade from his foreign competitors the situation cannot fail to become a very embarrassing one for him.

"That all this is plain to the American motor car trade I have not the slightest doubt. Looking through the list of firms which are now placing handsome and stylish automobiles on the American market, I come across a large number whose titles were once familiar in the advertising pages of the British cycle press. They have shown in America, as we will show here, that the cycle maker is the natural basis for the development of the popular. motor car. The experience which the American bicycle trade gained in the invasion of the late '90's will be invaluable to it in the time that is coming in the motor trade. That invasion was largely rendered ineffective by the fact that the American bicycle had been developed on purely American lines. Having frozen out by tariffs all foreign competition, the American designers had the field free to themselves, and with different climatic and cycling conditions evolved a machine that varied so much from European designs-which on the other hand had been designed under fierce if involved competition, to the requirements of their markets -that the American bicycle was a somewhat outre production to English eyes. The usual American faults of flimsy material, and lack of careful workmanship and finish, soon placed the reputation of the American bicycle on a very low plane and the rest was easy. The British bicycie maker, forced to adopt more modern factory methods and to cheapen cost of production imported American machinery wholesale, and speedily routed every invader from his market.

"But the American motor car manufacturer will not bring over an outre design. He will come, when he does, with the latest in European practice. The material which with an experimenting nation like the Americans, is always certain to be a weak point in the early stage of any industry—they seem to be getting rapidly down to a sound basis. Complaints regarding the unsubstantial nature of American construction are becoming less frequent, and will probably disappear as they have disappeared from our own trade.

"All this may be of somewhat remote interest at the moment, but I think that the more the British manufacturer and the British retailer consider and understand the potentialities of the moment, the more inclined will they be to put forth

every effort which may assist them in moulding the future. It is in this regard that I view S. F. Edge's missionary work on behalf of the British industry rather differently as compared with some of my confreres on the press. His advocacy of the six-cylinder design is looked upon as a bit of commercial trading. It may be he is a business man in everything; but at the same time could the six-cylinder be forced into recognition in this country as the proper type of engine for the modern motor car, the British manufacturer at the moment would be more able to change his types and patterns to meet the public demand than any of his foreign competitors. The motor trades of the whole world are either sparring for time or wind and a lead of this sort would be an invaluable aid to the British manufacturer at a rather critical moment."

GERMANY TREMBLES

Washington, D. C., Feb. 10-From mail reports just received from Germany it is learned that competition in automobiles is very keen, and there are evidences that American cars are beginning to make their influence felt in the European market. The American makers are becoming more careful in the selection of materials and construction, and American ingenuity is making itself felt in perfecting the cars. It is expected by the German automobile trade that in 2 or 3 years American manufacturers will have made a serious beginning to capture the European markets. The report says if American cars can be made of the very best steel, etc., without impairing the economy of production, they will have a wonderful market in Europe, where automobile prices are much higher than in this country. To attempt to flood the German market with cheap cars made of inferior materials, as was done in 1897-98 by American bicycle makers, would ruin the trade forever, as it has ruined the bicycle trade. The bad effect of the bicycle fiasco is still felt in that country.

SKILLED DRIVERS SCARCE

London, Feb. 3-Owners of automobiles are so handicapped in securing proficient men that the matter has become rather a legislative problem. The Motor Union which has been working on the matter for some months, instituted a sort of supervision over the motor schools which are endeavoring to teach people how to handle and understand a motor car, but as these are a very mixed lot, largely bogus and do not relish accepting any authority, very little has come out of it. The latest attempt of the Motor Union seems more likely to achieve something. It is an application to the various technical education boards of the country for grants in assistance of special classes to be instituted in the various centers, with the special function of instructing students in motor car construction and practical handling and driving.

BOWS TO THE MAKERS

Automobile Club of Great Britain Sets Tourist Trophy Race Date to Suit the Trade.

London, Feb. 3-The Society of Motor Manufacturers and Traders has evidently decided to adopt a more assertive policy in respect to the operation of other and friendly bodies than has hitherto marked it. This is brought out by the Automobile Club of Great Britain practically deciding to hold the 1906 Tourist trophy race in the Isle of Man early next May. Its officers were across in the island a few weeks ago making all arrangements to that end. As a sporting event the end of May was a considerably more advantageous time than the end of September-the alternatives which were set before the club by the interposition of what is called the Tourist season in the Isle of Man. From the middle of May to the middle of September hundreds of thousands of holiday makers crowd the island, and to close the necessary roads for practice and the race itself would interfere with this to an extent which the Isle of Man people would not countenance. But the British motor manufacturers did not view this early date with favor. It is partly their policy to make the Tourist trophy race a sporting event with great trading potentialities, something, as it were, to correspond with the European circuit, which has so absorbed the trading interests of continental makers. If the race had been held in the beginning of May it would have been impossible to have done more than compete with types of car which have been produced for the 1906 market, and any lesson obtained from the race for 1907 would have been equally at the disposal of foreign manufacturers. The British trader has as much sport in him as any other, but he feels that sport for sport's sake cannot hold in a business like the motor car trade. The end of September brings considerable risks in the way of bad weather, which with a fuel limit of 25 miles to the gallon may spell disaster to the whole affair; but it will give intending competitors sufficient time to develop the ideas which are already simmering in their minds for the types of popular car to be developed for 1906, with all the lessons of Olympia and the Paris salon and last year's race to go upon. The Society of Motor Manufacturers, therefore, diplomatically approached the club, pointing out these things, and the latter probably appreciating the fact that there was an iron hand in the velvet glove, promptly accepted the suggestion and announced that the Tourist trophy race would be held September 27. It is simply another move on the trade chess board, since it is not probable that with all the big contests engaging their attention on the continent, foreign manufacturers will produce special designs such as will be necessary to insure highest success in the Tourist trophy race, consequently the British manufacturer has again secured another little reserve of his own.

In regard to the Renault monopoly patent for direct drive gear the society has practically decided to accept reliability for any infringement on the part of its members should they be proceeded against by the French syndicate controlling the Renault patents. The official announcement to this effect is necessarily guarded, as each individual case will have to be considered on its merits, and, while purposing to indicate to the syndicate its intention to combat any attempt made to coerce the English motor manufacturer, it was necessary to safeguard itself from having, by its public declaration, to fight on a case which has material defects not anticipated. The situation, in short, is that if the Renault syndicate proceeds against an English manufacturer for infringing the broad principle of the Renault direct drive, the Society of Manufacturers will vote out of its funds sufficient to contest the case.

It is said the society does not view with favor the proposed attempt on the part of the syndicate, headed by S. F. Edge, to enforce alleged patent claims on the gate change speed system, for the reason that it is considered, despite the opinion of counsel on the matter, that the Mercedes patent in this particular cannot be upheld because, firstly, the patent in question provided for the removal of the clutch by the operation of the change speed lever, that movement has now been dropped and becomes vitiated in law; secondly, the practical character of the system is attacked on the ground that the gear on a Mercedes or on a Fiat can be changed without withdrawing the clutch, and could be changed if the flywheel and the clutch were bolted together. Counsel was of the opinion that the principal claims of the patent rested on a demonstration that it would be impossible to change the various gears unless the clutch was withdrawn.

CLAIMS BRITONS ARE BOYCOTTED

London, Feb. 1-E. H. Turnbull has come across here from Canada as a colonial patriot desirous of inducing British motor manufacturers to take a hand in the Canadian market and is getting a considerable amount of press support for his crusade. He states that, despite the preferential tariff which Canada extends to British manufacturers, the Canadian market is entirely in the hands of the United States manufacturers. So much so that at the coming Toronto motor show the dealers who are running the show decided that only those cars will be accepted for exhibition which have been handled in Canada prior to January 1 last. This, Mr. Turnbull states, is a practical boycott of any English manufacturer who might have been tempted to show his goods at Toronto in order to induce an opening.

HUGE OUTDOOR SHOW IS PLANNED

American Motor Car Manufacturers Association Decides to Inaugurate New Way of Exhibiting Its Wares to the Public—Event to Take Place Next Fall

Chicago, Feb. 13-Out of the fifth annual show of the National Association of Automobile Manufacturers, which closed its doors at 11 o'clock Saturday night, came an idea which promises to broaden the publicity field for the trade in affording it an opportunity to display its wares to the public in a manner which ought to be productive of more sales than the winter affairs. This latest is nothing more or less than an open-air show, something the veteran Charles E. Duryea has harped on for years and which now seems to be assured since the American Motor Car Manufacturers' Association stands sponsor for it. During the show week the independents quietly pushed their scheme along until now the trade at large has a pretty general understanding of the possibilities afforded by such an exhibition.

The first inkling bobbed up in the report of the annual meeting of the American Motor Car Manufacturers' Association, held at the New Southern hotel last Friday, made by General Manager Roger B. McMullen. After stating that the association had increased the number of its committee of management from five to nine members and that it now consisted of Benjamin Briscoe, James Couzens, J. B. Bartholomew, A. C. Newby, William Mitchell Lewis, Charles E. Duryea, Charles Lewis, Walter Marmon and W. H. Van Dervoort, Manager McMullen adds:

"The association also voted unanimously to hold an outdoor show in either the months of September or October, inviting the trade at large to join it. The association will become responsible for the management of the show. The general manager was instructed to investigate immediately and make a recommendation for. the location of the show at the earliest possible date. The association desires by this course to lengthen the manufacturing season for the manufacturers, and thus gain a reduction in the cost of their product. Offers of locations for the exhibit are already coming in from various cities,"

At the present time General Manager McMullen is on the road—maybe in Detroit, maybe in Milwaukee, maybe in Buffalo—no one seems to know just where. It is suspected he is quietly investigating for himself just what these cities have to offer in the way of accommodations for such a show, for everyone who has heard of the scheme believes it will be held in the middle west. Buffalo got an early tip on it, evidently, for the Sunday edition of the Buffalo Express blazons forth with a two-column article on "Right Spot Right"

Here," in which Bisontown is pointed out as the logical point for a show of this sort—a hub of the wheel, as it were. Buffalo offers the Kenilworth racetrack for the open-air show, where there is plenty of room for demonstration as well as exhibition purposes.

While Detroit has not come to bat yet, it is strongly suspected that she will be a strong candidate in the bidding, being the biggest automobile manufacturing city in America. It has racetracks, too, but it is believed the famous Belle Isle course would afford a finer opportunity for pulling off a successful show. With all those grand roads and so convenient to Detroit, the park is claimed to be the logical site for the independents' effort.

So far Chicago has not said anything, but sits back calm in the knowledge that she is the real pioneer in the outdoor show game. Readers of MOTOR AGE will remember in the last issue the history of the Chicago shows in which was described the outdoor show held at Washington park in 1900 under the auspices of the Chicago Inter Ocean. For the time it was a strong effort, the huge betting ring and paddock under the grand stand affording all the room wanted for exhibition purposes. Out on the broad track were run races, while all sorts of fancy stunts were done in the way of demonstrating the possibilities of the automobile. Washington park is still here, although its fate is doubtful, the club owning it having threatened to disband and cut up its broad acres into building lots. Whether this will be done before next fall is a question, but the chances are it will not be disturbed, which will give Chicago a good chance to ask Manager McMullen to consider its possibili-

This outdoor show, taken with the transcontinental train which G. A. Wahlgreen, of Denver, is going to run about the same time, will give the trade a fine chance to do what it has set out to do—lengthen the selling season and cut out at least half of those 4 months in which there is nothing doing.

While everyone is interested in the new project, no complaint is made over the show just ended. It was all it was expected to be—a grand spectacle as well as a business-getter. Chicagoans turned out in record-breaking numbers to see the exhibitions in the two big buildings, while from all parts of the country from Buffalo west came agents seeking a mart in which to place their orders. While exact figures are hard to get, there were few exhibitors who could say that Chicago had not pro-

duced more business than New York, maybe not so great in a retail way, but certainly more when disposing of outputs was concerned.

According to General Manager Miles, the attendance during the week averaged 24,000 daily, an increase of 50 per cent over last year, which itself was a record-breaker. Wednesday and Saturday were the big days, with probably the former as the most remunerative for the reason that on Saturday the exhibitors who had the yellow tickets with four punches a day on them realized it was futile to hoard those punches longer, with the result that the deadhead list was much larger than on other days.

All doubts as to future winter shows in Chicago were dispelled by the announcement made that General Manager Mileshad renewed his lease with the Coliseum people as well as with the First Regiment. armory management and that for the next 3 years at any rate he would have the sayso regarding the automobile exhibitions tobe held in the two giant structures. At the same time Manager Miles gave out the dates for next year. They will be the same as this season-February 2 to 9. This will make the 1907 winter show season the same as this, the Madison Square garden and the A. C. A. people having also picked their dates to correspond with the ones of last month. There will be the same two exhibitions in Gotham and the same gapbefore Chicago has an inning.

Besides the meetings of the National Association of Automobile Manufacturers and the American Motor Car Manufacturers' Association, the American Automobile Association assembled on Thursday for the purpose of electing its officers. for the ensuing year. This wasn't much trouble, for a nominating committee, headed by Windsor T. White, had taken off the meeting's hands the trouble of selecting the timber. The slate as proposed by this committee went through, the only bit. of gossip being furnished by the retirement of A. G. Batchelder as secretary. Batch's successor is Sydney S. Gorham, secretary of the Chicago Automobile Club, who was insisted upon by John Farson, of Chicago, before he would consent to accept the presidency of the association. Although the two Chicago men are in control of things, there will be no shakeup, and the A. A. A. headquarters will be maintained in New York, as both Farson and Gorham find it convenient to run to Gotham any time they are needed there, Farson in particular dividing most of histime between the two cities.

Vice-presidents chosen by the meeting are William H. Hotchkiss, of the Automobile Club of Buffalo; Dr. Milbank Johnson, of the Automobile Club of Southern California, and Louis R. Speare, of the Bay State Automobile Association. George K. Farrington, of the Automobile Club of New Jersey, held over as treasurer. The

board of directors will consist of the following: John Farson, Chicago Automobile Club; W. H. Hotchkiss, Automobile Club of Buffalo; Dr. Milbank Johnson, Automobile Club of Southern California; D. R. Spear, Bay State Automobile Association; G. E. Farrington, Automobile Club of New Jersey; William A. Rolfe, Massachusetts Automobile Club; A. Asa Goddard, Worcester Automobile Club; Dr. F. E. Constans, Brockton Automobile Club; Dr. F. W. Brandow, Berkshire Automobile Club; S. L. Haynes, Automobile Club of Springfield; R. L. Lippitt, Rhode Island Automobile Club; Dave H. Morris, Automobile Club of America; A. R. Pardington, Long Island Automobile Club; F. H. Elliott, Syracuse Automobile Club; H. S. Woodworth, Rochester Automobile Club; N. M. Pierce, Binghamton Automobile Club; A. G. Batchelder, New York Motor Club; F. R. Pratt, New Jersey Automobile and Motor Club; G. A. Post, North Jersey Auto Club; W. E. Edge, Atlantic City Automobile Club; J. H. Edwards, Automobile Club of Hudson County; K. G. Roebling, Mercer County Automobile Club; W. C. Temple, Automobile Club of Pittsburg; H. Bartol Brazier, Automobile Club of Philadelphia; W. T. White, Cleveland Automobile Club; Val Duttenhofer, Jr., Automobile Club of Cincinnati; W. S. Belding, Automobile Club of Maryland; Asa Paine, Florida East Coast Automobile Association; A. B. Lambert, Automobile Club of St. Louis, and E. H. R. Green, Dallas Automobile Club.

Treasurer Farrington reported a balance of \$4,679.10 in the treasury, while Secretary Batchelder told that there are at present sixty-six clubs in the association, representing 7,100 motorists. It was also reported that the Vanderbilt cup race showed a profit of \$5,531.58. The new officers take hold March 1.

TALK BRAKES AND SHOES

New York, Feb. 10-A meeting of the engineers and factory superintendents, who comprise the mechanical branch of the Association of Licensed Automobile Manufacturers, was held at the New York headquarters yesterday, in which the rapid strides made by the big makers were discussed. The subject under consideration was brakes and brake shoes and the best material for them. While the talk was interesting and valuable, it was overshadowed by a report from the test committee on the results obtained in the laboratory, in a search for the best materials for various parts, and in a printed expert re-Port on the mechanical features of the cars exhibited at the Paris show. The report of the test committee detailed a number of Practical experiments with the various alloy steels, made by Henry Souther with an alternate stress machine. Some of the results were of the utmost significance. The report on the Paris show prepared by Joe Tracy was read to the meeting.

GETS BIG ROAD RACE

France Turns Over to America Right to Hold Vanderbilt Cup Event in This Country

New York, Feb. 12—The announcement, gentained in a cablegram from W. K. Vanderbilt, Jr., in Paris, to his secretary in this country, that the Vanderbilt race would be held this year on the Nassau circuit in Long Island, where it was contested last year, came as a pleasant surprise to automobilists who were hoping for a large road race of some sort in this country next fall. The cablegram, which was received last Thursday by Mr. Vanderbilt's private secretary, is as follows:

Please communicate to Morrell, chairman Vanderbilt cup race, the race to take place America this year. Course, date and committee same, if possible, with German, Italian, English and French répresentatives on board. Have seen racing board here. As per their letter, unable race France this year. American car finishing third gives us privilege of holding race in America this year.—W. K. VANDERBILT.

Auguste Hemery's victory in the Darracq last year, was the second winning of the trophy, it will be remembered, by a French car. This, under the terms of gift, caused the cup to go to France and allowed the Automobile Club of France to supervise the running of the event this year. The stand taken by that club against the promotion of speed contests has evidently operated against the holding of a race on French ground. The winning of the race by Heath and Hemery on succeeding years has, therefore, resulted in nothing in so far as the French racing authorities are concerned. The fact that the race is brought back to America is due to the securing of third place by Joe Tracy in the Locomobile.

Chairman Robert Lee Morrell, of the racing board, seems much pleased with the decision of Mr. Vanderbilt that the race is to be held in America. He said he thought the leading spirits who were concerned in the last Vanderbilt race could be induced to take hold of this year's event. This was taken as an indication that Mr. Morrell, under the stimulus of an imminent international road race in America, might be induced to change his mind with regard to the nonacceptance of the racing chairmanship for another year. This is grounds for a good deal of congratulation as, taken all in all, Mr. Morrell's chairmanship is generally believed to have been a success.

A number of American manufacturers have already signified their intention of building cars which will compete in the Vanderbilt race if it is held in the country. The fixing on the Long Island course at the same date as last year, or a week earlier, as has been suggested, will give these manufacturers an opportunity to carry forward their plans. J. D. Maxwell announced some time ago that the Maxwell-Briscoe company would be represented in the Vanderbilt race by a powerful car of entirely new construction. The White

Sewing Machine Co. is also credited with the intention of entering a racing car in this year's race. The Matheson company intends to have another try at the American team, and it is said that E. R. Thomas is at work on a new racer, undaunted by the very peculiar decision which followed the eliminating trial of last fall. The Pope Mfg. Co., always first in entries for events of this sort, long ago announced its intention to compete. Several other American manufacturers are known to be studying the situation.

Joe Tracy was seen today. His face was abeam over the prospect of the Vanderbilt race being held in this country, and when he was asked if he would be a competitor, Joseph replied:

"If I am not in that race, it will be because I can't get a car."

FIGHT SHY OF TIRE TESTS

London, Jan. 30-If any further proof was required to indicate the failure of the proposed tire trials of the Automobile Club of Great Britain, that the entries have yet again been extended from February 1 to February 12 and the events themselves until February 26 would suppliy it. It is undeniable that these alterations in dates have been due to the desire to induce or cajole the trade into lending a support which it has denied up to the present. No information of a definite nature is procurable but it is probable there are barely sufficient entries to enable the contest to be held, while what was considered a valuable opportunity offered to the makers of speedometers and lamps to take advantage of the trials in order to secure the automobile club certificates for their goods, has fallen very flat. The whole business simply indicates how necessary it is for any promoting body like the automobile club to ascertain the views of the trade before entering upon any program of this

STATE CLUBS TO ORGANIZE

Philadelphia, Feb. 12-The officials of the Automobile Club of Philadelphia will take advantage of the annual meeting, on March 12, to formally launch the project of forming a state automobile association, The need of such an organization has long been felt, and with the rapidly-spreading tendency of municipal and state legislators to promulgate radical laws for the government of automobiling it is realized that the formation of a strong defensive, including the motor car owners of the entire state, cannot come too soon. With a view of securing the opinions of prominent automobilists not alone in Philadelphia, but in all portions of the state, Secretary H. Bartol Brazier has issued invitations for a preliminary meeting in that city during the automobile show, which opens on February 24. From the number and character of the replies already received it is manifest that the time is ripe for carrying the project to a successful completion.

LULL IN JERSEY WAR

Discussion of Frelinghuysen Bill by Judiciary Committee Goes Over-Farmers in Scrap

Philadelphia, Feb. 12-"Too much of a bad thing" is likely to get the Jersey automobilists and their Quaker confreres out of a bad pocket. The Jersey farmers, who wield a powerful ballot, wanted to further restrain the automobilists, and Senator Frelinghuysen evolved the bill which bears his name, and which threw the motor car owners of New Jersey and neighboring states into convulsions. But they overdid the thing, and a strong element among the farmers in the state which desired the same thing, but which was unwiling to be unfair, induced Senator Jackson to introduce another measure, much less radical, but still radical enough to cause dismay in the ranks of the objects of the proposed legislation were it not for the much more obnoxious Frelinghuysen bill. While the two opposing bucolic factions are wrestling with each other, the automobilists hope for a compromise measure which will not impose too onerous a burden upon them.

The imposing protest planned for last Tuesday at Trenton, when the senate judiciary committee sat to listen to the arguments for and against the Frelinghuysen bill, failed to materialize. The day before the meeting it became known that Professor John E. Gill, secretary of the Associated Automobile Clubs of New Jersey, which is leading the antis, was not ready. His best speakers had other engagements, and the plan of battle was not yet decided upon. When, therefore, Senator Thomas J. Hillery, chairman of the committee, opened proceedings Professor Gill was on his feet in an instant and moved for a postponement. Senator Frelinghuysen opposed this motion, saying the automobilists had had ample time for preparation, but the professor eventually prevailed, Tuesday, the 20th, being named as the day. It was then decided, in view of the fact that the hearing would take at least 2 days, to listen to arguments in favor of the bill. And maybe the farmers' friends hadn't a cinch! When they had finished the automobilists hadn't a leg left to stand on.

The ball was opened by Clarence E. Case, of Somerville, whose argument was really a masterpiece. He said some unfailing method must be devised to hold the automobile and its operator to the duty which they owe to the public. Laws which cannot be enforced are useless, and the present law is of that character. An automobile and speed are synonymous, he said, but some unfailing method of controlling that speed must be devised. The Frelinghuysen bill, he thought, would do it. Those state officials whose business it is to look after the roads say that automo-

biles damage the macadam surface, and that damage should be repaired by those who cause it. No municipality, Mr. Case said, should be deprived of the right of regulating vehicle speed within its own boundaries, and the pedestrian or driver who suffers damage from automobiles should have some means of protection without recourse to damage suits. No man who can afford to run an automobile of say 20 horsepower should complain about paying \$10 a year-plus 25 cents for each unit of power for each chauffeur-for the privilege of using the hundreds of miles of good roads in the state of New Jersey, especially in view of the fact that that money goes to the repair of those

Further on, while on the subject of arrests, he said: "Who are autoists that they should have a special law unto themselves by which they cannot be arrested except by warrant? Any peace officer in this state is empowered to arrest on sight a man he sees committing an infraction against the laws, and yet motor car owners pretend to see a hardship in this wise provision of the proposed law."

Farmers and their wives and children, said Mr. Case, are becoming mortally afraid of automobiles, and will not drive a team on roads frequented by them, fearing an accident.

"The people fortunate enough to own automobiles are of no better clay than the rest of us," thundered the young lawyer, "and they should not expect to monopolize the highways." In conclusion he ventured the prediction that eventually automobiles of more than ordinary power will have to be prohibited from using the roads.

Other prominent speakers who spoke in favor of the bill were Counselor John Sykes, of Trenton; John A. Murray, of New York, and Colonel E. S. Edwards, of the S. P. C. A., of Newark,

KICK ON JAIL CLAUSE

Washington, D. C., Feb. 10-Opponents of the bill recently introduced in congress by Representative Sims, of Tennessee, regulating the speed of automobiles in the District of Columbia, will have a chance to air their views on the subject some time next week, the district commissioners, to whom the bill was referred, having decided to give the automobilists an opportunity to be heard. The Sims bill is classed as the worst piece of proposed legislation the automobilists of this city have ever had to contend with and they are going to put up the strongest kind of arguments against it. The provision calling for imprisonment for two violations of the proposed law within 1 year is universally condemned. The superintendent of police and other municipal authorities point out that as many violations of the law are unintentional, it would be a hardship as well as an injustice to invoke the imprisonment clause upon the automobilists.

MOTOR CAR UNDER FIRE

American Machine Used to Suppress Chinese Uprising by Chief of Volunteers

Chicago, Feb. 12—As showing the condition of automobiling in China Motor Age publishes the following letter, which it has received from the Automobile Club of China through its chairman, G. E. Tucker, who writes from Shanghai under date of January 6, as follows:

"The following item may probably be of interest for your publication: What is probably the first time that the motor car has been used by military officials in time of actual hostilities occurred during the recent riots in Shanghai, China. On December 18 there was an uprising of Chinese in this city in which violent attacks were made on the police stations, the town hall and the Hongkew market. Nanking road, the main thoroughfare of the city, was a scene of a howling mob of Chinese during the whole forenoon. By midday the Shanghai volunteers were under arms and with the assistance of marines and jackies, who were landed from the various warships in the harbor, succeeded in quelling the first attack of the rioters after killing about eighteen Chinese. Lieutenant Colonel Watson, the commander of the Shanghai volunteers, an international military organization composed of cavalry, artillery and infantry, requested and received the services of Mr. Craig's 20-horsepower automobile. companied by his aide, Captain Collier, and an orderly and driven by Mr. Craig, he maintained a movable headquarters in this car practically day and night for 48 hours, the car enabling him to get about to the various parts of the settlement. The services of the car was highly appreciated and the municipal council has expressed its appreciation of Mr. Craig's services in the following from the civil commandant and chairman of the Shanghai Volunteers:

Council Room, Shanghai, 22nd December, 1905.—Sir: On behalf of the council I have the honor to convey to you an expression of sincere appreciation of the valuable services rendered by you in connection with the defense of the settlement during the recent disturbances. As the result of your public-spirited action in placing yourself and your motor car at the disposal of the commandant, and by your untiring exertions the defense of the settlement was very materially assisted. I have the honor to be, yours—F. Anderson.

"Thus it has fallen to an American car the honor of being first used in times of actual hostilities.

"The Automobile Club of China, which was formed in Shanghai last April, has been slowly growing and is now contracting with some land owners to erect a large garage. The club is composed of about forty members at present and over fifteen varieties of cars, American, Continental and English, are represented. There are also in Shanghai about fifteen motor boats, mostly American. While the sport is com-

paratively new in this country, there is an abundance of enthusiasm shown by those who have been fortunate enough to have had a taste of motoring. It was the same way in the bicycle days, but this new sport appeals to us more because there is no real work connected with it. China undoubtedly offers a grand field for the American manufacturer, for his cars are greatly admired here. The automobile, too, has come into great prominence through the incident referred to above, and the Chinese, as well as the foreign residents, are quick to grasp its possibilities."

GRAND PRIX DATES

Paris, Feb. 3-Dates talked of for the grand prix of the Automobile Club of France are June 26 and 27. Despite all the interest shown in the race it is not being given the fullest support by the trade, one or two of the makers having kicked over the traces and refused to back the big event. The Mors people, who some time ago announced they would no longer support racing, have reiterated this by giving it out cold that they will not have an entry in the Sarthe circuit affair. The Bruhot makers are of a similar frame of mind, while it is a well known fact that Marquis de Dion will not take any active interest in the race. The marquis is bending all his efforts toward making a success of the 5,000-mile European circuit tour, believing such events are more valuable to the trade than racing.

The committee representing the city of Mans which secured the grand prix for the Sarthe circuit is losing no time and is now endeavoring to appease the motorphobist tendencies of the local population. In recent races there have been several accidents caused by the carelessness of the local population which has given rise to bad feeling. In order to avoid this in the case of the present race on the Sarthe circuit there are being organized concerts and lectures to be freely given in connection with cinematograph displays in order that an enlightened and friendly spirit may be displayed when the race comes off.

PREPARING TO FIGHT

Philadelphia, Feb. 13-The legislative committeemen of the A. C. of P., in conjunction with a special committee of the Philadelphia Automobile Trade Association, is preparing for the final fight with the city over the question of tags. This little scrap, which is overshadowed by the great fight against the Frelinghuysen and Jackson bills in Jersey, is scheduled for next Friday before the state supreme court. Ira J. Williams, attorney for the automobilists, is confident the court will decide in favor of his clients, in which event the city will be compelled to consign to the scrap heap some \$1,500 worth of uscless tags and printed matter which had been ordered and paid for in the belief that both city and state tags would be required on all automobiles.

ROASTS RACE CONTROL

New York Times Demands Wholesale Change in Management of Automobile Contests

New York, Feb. 12-In an article which does not hesitate to call a spade a spade, the New York Times yesterday demanded wholesale changes in the management of automobile racing in America. The writer claims radical changes are necessary in order to do away with many of the difficulties which handicapped the competent officials at the Vanderbilt cup race, and for the general betterment of the racing situation. Citing the discussion which was red-hot at the time, over the advisability of turning matters into the hands of the Automobile Club of America, the Times man comes to the conclusion that the A. A. A. is the proper authority to continue in the management of all races in this country and to represent American competitors in foreign races. The suggestion is made that racing control be placed under the exclusive supervision of an executive committee to be composed of as few men as possible, but of acknowledged ability in the handling of motor competitions. The article continues:

"A still further demand for the control of racing by a small but well selected executive committee has been made since the recent Ormond races. The utter inability of the local club to manage the events properly has led both competitors and many prominent northern automobilists who went south to witness the contests to a conviction that the Ormond events should also be managed by this national racing committee.

"The Ormond races are an international affair. Efforts are made to secure as competitors the best racing men and the fastest machines abroad. The racing results on the Ormond beach have always represented triumphs of automobile speed, and if the races are to merit future success new methods in management are needed."

It is known that there is considerable basis for the Times article. Men prominently identified with the racing game in New York city, however, are not at all sure that the executive committee plan will solve the problem. Many believe that a reorganization of the racing board and a revision of the rules will produce results highly beneficial. It is pointed out, however, that it will be necessary for officials of future race meets, and the racing board, to live up more fully and completely to the letter and spirit of the rules, or complications of an unpleasant nature are apt to ensue. Force has been given to this article by the discovery at Ormond that the Hemery Darracq was run without a differential. Errors of this kind in future are apt to work a great deal of harm in the general racing situation. The Hemery incident at Ormond attracted considerable attention at the time. and Referee Morrell was criticized for refusing to get down on his hands and knees and look for the differential. Morrell, however, has ideas of his own regarding the duties of a referee and points out that at the last Vanderbilt cup race Referee Vanderbilt did not have to worry over any of the preliminaries; all he had to do was to walk on the course and act in his official capacity. Many believe as does Morrell, and it is expected that if a reform in the conduct of racing does come that such things as Morrell has pointed out will be attended to.

QUEEN'S AMERICAN PLANS

Rome, Jan. 28-Margherita, the queen mother of Italy, is making her plans for a tour through America in a motor car this year, during which she will devote particular attention to the west, for she has been greatly impressed by Bret Harte's sketches. The queen will travel incognito, however, having selected the title of countess of Stupinigi, and will use a Fiat, which will accommodate six people. The queen is a great traveler, but, strange to say, at one time she wouldn't even look at an automobile, let alone ride in one. Her conversion came one day when her son, King Victor, induced her to accompany him on a ride. Coming down a hill the brakes refused to work and the car whirled down to apparent destruction. Luckily royalty escaped unhurt, but that wild dash just suited the queen, who had been extremely melancholy after the assassination of her husband, King Humbert. She became an ardent motorist and since then has been through all sorts of adventures. She has been stoned by roughs, been in collisions and lost, but still she keeps up her favorite pastime.

FRENCH COUNT HERE

New York, Feb. 14-Special telegram-A distinguished French visitor has been investigating automobile conditions in New York. He is Count Henry de La Valette, a member of the administrative council of the Automobile Club of France. Count de La Valette was sent by the French club to investigate manufacturing conditions and the general situation since the national shows, and to make a report covering the trade and industry in this country. He has been stopping at the Waldorf-Astoria for 2 days and leaves tonight for New England and later for Detroit, Cleveland, Toledo and Chicago. He will inspect factories in these and other cities and gather statistics and data for French manufacturers. Count de La Valette is a mining engineer and mechanical expert for the Tribunal of First Instance at Paris. He is also a special commissioner of the Tribunal of Commerce. The count is much surprised at the development of the motor car industry here.



ONE OF THE HAYNES 1906 CARS-MODEL O, 28-30 HORSEPOWER

WO models of Haynes cars, products of the Haynes Automobile Co., of Kokomo, Ind., are shown for the present season, both of which are designed along similar lines, the larger car with a 50-horsepower motor, while the smaller is rated at 30 horsepower. The former, known as model R, is fitted with either a touring car or limousine body, both after the design of a Parisian body maker. The smaller model takes bodies of touring car or runabout lines made after designs of the same Frenchman. The motors, with all their appurtenances and the clutch of both cars, are identical except for size. The larger model has separately cast cylindlers, whereas cylinders cast in pairs are in use on the smaller machine. So great, however, is the resemblance that a description of the motor in the larger machine will suffice for the other. Perhaps no change in these models is so pronounced as the introduction of a sliding gear transmission, which replaces the individual-clutch type, which has been a talking point in the Haynes machines during the past. In onumerating many of the other changes, it is noted that the valves are carried on opposite sides of the cylinders; the motor is supported through integral arms on the top half of the case, leaving the bottom free for removal and serving as an inspection plate; I-beam axles are regularly fitted; both spark and throttle are now controlled from levers on a stationery quadrant on the steering wheel; a hollow aluminum dash takes the place of the straight wood type; spiral springs are used in the clutch for absorbing the jar occasioned by a too quick engagement; the frame pieces are now slightly offset alongside of the motor and carry a wood filling which extends from the front spring hangers to the rear of the transmission box; new types of universal joints are supplied in the propeller shaft; the muffler is increased in length but diminished in diameter; and a ratchet wheel is inserted in the gearbox, which allows of the car coasting down a grade at a faster speed than the motor would propel it, the motor tak-

ing up the drive, however, as soon as the speed of the car is reduced and the gear serving as a solid wheel.

Shaft drive is retained, with a roller pinion on the rear of the propeller shaft for engagement with the large bevel on the differential. The flywheel clutch is still of the friction band type. A solid rear axle from wheel to wheel, with one of the road wheels driven from the differential through a sleeve surrounding this axle, is still in vogue and the 108-inch wheel base has not been changed, although a 97inch base serves in the smaller car. In concluding his general resume of the machines, it can be noted that Timken roller bearings are used in the front wheels, Hyatt rollers in the rear axle, with Timkens for end thrust in the propeller shaft; Standard roller bearings in the front and rear of the crankshaft and American roller bearings in the gearbox.

Not a single crosspiece is required in the pressed steel main frame of the 50-horse-power car, a construction which is rendered possible on account of the crankcase and gearbox each having a pair of integral arms on either side which extend direct to the frame pieces and are bolted thereto instead of four frame cross braces. Besides these, there are cross rods through

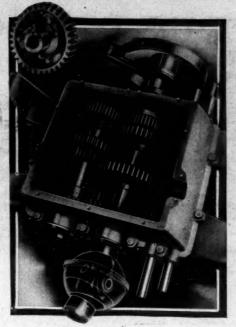
HAYNES CONTRACTION BAND CLUTCH

each end of the spring hangers, that at the front aiding in carrying the axle of the starting crank, and the rear one carrying on its ends the back end of the half-elliptic rear springs. Besides these cross braces there is a cross rod in connection with the brake equalizers, another for supporting the clutch and footbrake mechanism and a third just to the front of the rear springs and to the ends of which the springs are shackled. The filling of the channel sections with wood from the front to the rear of the gearbox gives a considerable support which is particularly serviceable because of the side pieces being champered, or offset, just to the rear of the motor. The tops of the side pieces are straight throughout, but the bottoms taper rapidly from the front spring hanger, to midway of the motor, where they reach their maximum depth, which is retained until it is in the rear of the gearbox, when a gradual taper to the rear spring hangers commences. The I-beam front axles in use on both models are of the weldless type, being a onepiece forging from end to end with the jaws for the steering knuckles integral. Made integral with them also are the large square-shaped seatings on which the halfelliptic springs rest and are held thereto by central bolts and heavy clips. The front springs measure 40 by 21/2 inches and the rear pair of the same width is made 6 inches longer and follows accepted lines in being carried outside of the frame pieces. The rear axle of live construction will be referred to in connection with the transmission system. Front and rear wheels have a diameter of 34 inches and carry 41/2-inch tires.

In spite of the cylinders in the 50-horsepower motor being separate castings, the length is not great, and although the motor is carried entirely to the rear of the front axle, a wheel base of reasonable length suffices. The cylinders have a bore and stroke of 5½ and 6 inches, respectively, and are ground and highly polished throughout, the maker using in them a metal of special combination which is claimed to take a fast polish and to hold

compression well. Each cylinder is an integral casting, the valve ports and jackets being in one. For accessibility an open space is provided in each cylinder head, which is covered by a cap threaded into place. Through the removal of this cap the interior of the cylinder can be inspected at any time without dismounting the motor in the least. In doing this the cylinder head is slightly arched and the cap covering the head is waterjack eted. Valves are made interchangeable and can be removed through inspection caps in the top of the ports threaded into the port heads. The camshafts, not being housed within the crankcase, are readily accessible. In each side of the crankcase is a pocket in which the shaft runs. The covering of these pockets consists of two plates, one covering the front half and the other the rear half of the shaft, each being held in position by six nuts. The guides for the push rods have a threaded fit in the top of short tubes in the camshaft cover. On the bottom of the push rods are rollers, which bear upon the cams on the shaft. On the top of these rods are nuts and lock nuts for adjustment purposes. The half-time gears are carried in aluminum housings at the front of the motor and instead of driving them direct from the gear on the end of the crankshaft, an intermediate reducing gear with the fiber-lined teeth is furnished, which aids materially in reducing the noise.

Crankshafts, connecting rods, pistons and piston rings receive special attention. The first of these, a high carbon steel product, has a tensile strength of 100,000 pounds with a 70,000-pound elastic limit and revolves on five bearings. Those at the front and rear are Standard rollers, the latter of almost double the length of the former. The three intermediate bearings between the cylinders, are of Parsons' white brass and of such length that when taken in conjunction with the end pair give a total bearing service of 19

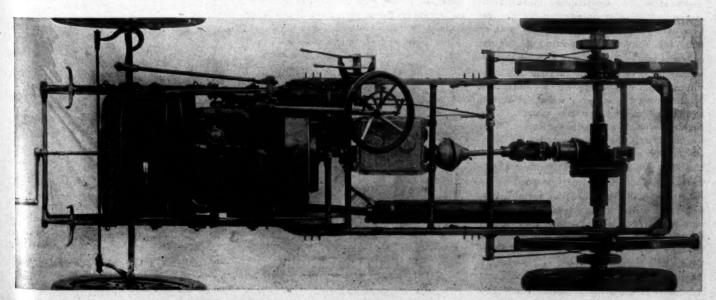


HAYNES SELECTIVE SLIDING GEAR SET

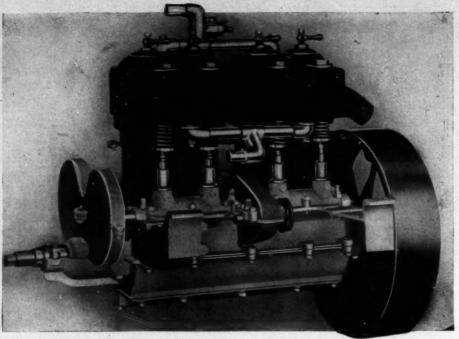
inches for the crankshaft or an average of 3% inches for each bearing. The connecting rods of the much followed I-section style are drop forgings, with squarefitting cap at the lower end and non-adjustable bearings at the wrist pins. On each piston are ten rings, three of which are of the triplicate type. The fourth, a broad ring, serves to hold the piston pin in position. In the three triplicate rings is one broad ring, 7-16-inch wide and 1/8-inch thick, over which are fitted two smaller rings 7-32-inch wide and 1/8-inch thick. These smaller rings are split on the opposite sides of the big ring, which serves to constantly expand them, holding them in close touch with the cylinder bore. These three compound rings are at the upper end of the piston. Below the wrist pin is a pair of oil grooves. In cooling the motor a double fan combination is effected, there being a belt-driven fan in

the rear of the radiator. The flywheel, of large size, has propeller spokes, giving it the value of a fan for drawing the gases from around the cylinders. Included in the water system are a honeycomb radiator, forming the front of the bonnet, a regular piping system, and a gear-driven Haynes centrifugal water pump, carried on the left front cylinder arm. The pump is on a separate shaft at the left of the motor and parallel with the camshaft, from which it is driven by spur gears between the second and third cylinders. The pump, of the centrifugal type, consists of a broad, hollow wheel part eccentrically mounted in a drum chamber so that one side of the wheel is always in contact with one side of the chamber. The wheel part is split centrally, in which slot are two blades kept constantly in touch with the interior circumference of the pump chamber at opposite sides. The maker claims the pump capable of throwing a stream of water 40 feet from a standard nozzle. Water for the pump is drawn from the base of the radiator and delivered to the exhaust ports close to the valves. The exit fro mthe pockets to the radiator is at the right top centers.

In lubricating, a force-feed Hill oiler, carried on the rear left arm of the motor, is called into service. One of the leads passes direct to the crankcase by way of the housing covering the gears driving the pump. The remaining four feeds enter the front of the cylinder walls immediately beneath the termination of the waterjackets. The oiler is driven through a small spur gear, which takes its drive from a similar gear on the pump shaft. Ignition is by jump spark, with spark plugs carried vertically in the caps over the inlet valves. The current is taken from one set of dry cells and one storage battery, but where desired arrangements for installing a magneto are provided. Distribution of the high tension current to the four cylinders is through a LaCoste commutator car-



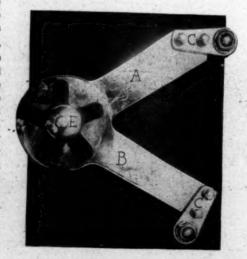
TOP VIEW OF CHASSIS OF HAVNES 30-HORSEPOWER CAR, SHOWING CYLINDERS CAST IN PAIRS AND SHAFT DRIVE



HAYNES 30-HORSEPOWER FOUR-CYLINDER MOTOR

ried on the top of the vertical shaft between the second and the third cylinders and gear-driven by bevels off the inlet camshaft. Mixture to the cylinders is supplied by a Schebler carbureter carried low at the right, the throttle valve of which is under the control of a finger lever on the steering wheel and also an accelerator pedal, carried on the steering column where it pierces the dash.

Connecting the motor with the gearbox is a Haynes clutch of the contraction band style. In a nutshell, this clutch is a band brake with a drum or wheel part rigid with the flywheel and the band portion connected with the shaft to the gearbox. The contraction of the band is by clutch pedal, which operates a cam through which the band is tightened to the wheel or drum part. In making the clutch a bronze hub with four radial arms, each ending in a fork, is used. Made integral with these arms is a pulley or drum 101/4 inches in diameter and with a 1%-inch face. This pulley is one portion of the brake, the band portion operating around it. The hub piece is turned to a bearing for the end of the crankshaft and the four arms extend to the inner rim of the flywheel, where they are attached to four lugs, one lug resting between each fork. Stiff coil springs are fitted; one between each side of the lug and the fork. Within these springs and passing through the lug and fork are heavy bolts pinned in position. The coil springs serve to absorb the jar when the clutch is thrown in too fiercely or in case the brakes are applied too quickly. This part of the clutch corresponds with that portion of a cone clutch belonging to the flywheel. Revolving loosely around the face of the pulley is a steel band, the hub of which is keyed to the shaft going to the transmission. This band is split crosswise, one end being attached to an arm from the hub and the other end connected with a lever which, when actuated by the clutch pedal, operates a cam working against the loose end of the friction band. In the clutch illustration the two arms carrying the friction band can be noticed. Pivoted in the end of the upper arm is the short lever extending towards the hub, and working within a slot in the flange at the hub of the clutch can be seen the spoon-shaped piece which thrusts the lever to the left, tightening the band. In the 50-horsepower car the transmission is of the selective sliding gear type, affording three speeds ahead and one reverse, with direct drive on the high speed. The mainshaft is squared and carries two sliding units, each in the form of a single gear. Two shifting rods are required, both of which are carried within the gearbox, and are operated through depending arms from sleeves on a crossshaft, there being one arm for each shifting rod. The change speed lever works in a two-slot quadrant and when in the outer



TRUFFAULT-HARTFORD SHOCK ABSORBER

slot to the front gives the reverse and to the rear slow speed ahead. When working within the inner slot it gives the second speed in the forward position and direct drive when to the rear. The feature of the gearset is the ratchet gear seen in the illustration on the front or top end of the countershaft at the left and also shown at the upper left-hand corner in the same illustration. This gear has three pawls, which work in a three-notch ratchet wheel on the shaft. Should the shaft carrying this gear revolve faster than the gear, it can be noted that the pawls slip over the notches, thus allowing the car to coast while going down a grade with the engine running very slowly, but as soon as the speed of the car drops so that the countershaft carrying this gear revolves at the same rate as it would if driven by the motor, then the pawls come into action, taking up the drive. This device permits of changing gears when the car is coasting in this manner without disengaging the clutch.

The drive shaft to the rear axle has a dust-proof universal joint immediately in rear of the gearbox and another in front of the differential housing. Connected with the latter is a sliding jaw clutch device by which variations in the length of the shaft caused by spring vibrations are cared for. The rear of this shaft is carried in a separate housing on the front of the differential case, where it is supported on two Timken roller bearings. The rear axle has Hyatt bearings at either side of the differential and also at the wheels. The axle proper consists of a 11/4-inch shaft of nickel steel of a high tensile strength and elastic limit. One road wheel is keyed to this shaft and at its center it carries one member of the differential. Over the opposite end is slipped a closefitting steel sleeve which has the other member of the differential secured to its inner end and the road wheel to its outer end. In this way a solid shaft extends from one road wheel to the other. The complete driving mechanism to the axle is enclosed in a steel housing which is stiffened by the use of a truss rod extending from end to end and affording it support beneath the differential housing.

Both internal expanding brakes used for emergency purposes and regular friction band brakes are carried in conjunction with brake drums on the rear hubs. Both sets operate on a drum surface, 12 inches in diameter and very wide. The emergency brake lever is keyed to the end of the shaft, which crosses above the gearbox and surrounding which are the sleeves used in the gear shifting scheme. This shaft has a bearing in each side of the gearbox and that portion of it over the case is covered by the top plate of the gearbox. Both sets are interlocked with the clutch and regular brakes have an equalizer insuring equal application on each rear wheel.

The smaller car, officially known as

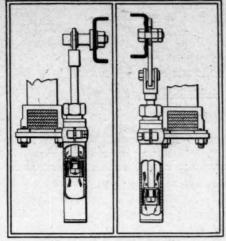
model O, is rated at 30-horsepower and has a four-cylinder motor with cylinders cast in pairs, with bore and stroke measuring 4¼ and 5 inches, respectively. As stated, the remaining motor features are identical with the 50-horsepower car. Instead of a selective gear set, a standard sliding gear system is adopted which gives three speeds and reverse and is fitted with a special ratchet device within the master countershaft gear, as in the large car. Changes noted in the running gear are 97-inch wheel base, 32 by 4 inch tires, 34 by 2-inch half-elliptic springs in front and 36 by 2-inch full elliptics in the rear.

TRUFFAULT SHOCK ABSORBER

Truffault-Hartford shock absorbers for this season, although resembling those used in the past, are decidedly different in that the adjustment is largely automatic. As heretofore, its maker, the Hatford Suspension Co., 67 Vestry street, New York city, makes use of two arm pieces A and B, the former attached to the vehicle frame in case of a half-elliptic spring and the latter to the bottom of the spring through a short leaf piece held in place by the spring clips. Where attached to full elliptic springs both arms are secured direct to the spring, one to the top half and the other to the bottom portion. The arm A connected with the car frame is pivoted thereto and at its other end is made circular, with a low peripheral flange at each side, giving the disk a double plate effect. On each side of this disk is placed a circular piece of heavy leather equal in thickness to, or a little deeper than, the depth of the flanges. The arm B is in reality two arms placed face to face and secured by a pivot joint to the spring. These arm pieces end in circular plates of the same diameter as that on the piece A and fit outside of it, thus resting on the leather pieces carried by the arm A. In this way the springs in the arm pieces B clasp the piece A and in order that sufficient friction can be generated between the opposing faces of these parts a central bolt passes through both and holds a spring star piece D against the arm B. By tightening the nut any degree of tension desired can be given to the spring piece D and a corresponding friction created between the leather pieces carried by the arm A and the opposing faces of the arm B. These absorbers are made in two sizes for cars weighing 1,500 pounds and under and for those weighing over that amount. In the larger size the circular ends of the arm A and B are 41/2 inches in diameter and in the smaller size these are 3 inches in diameter. In all cases one device is required for each spring.

THE FOSTER SHOCK ABSORBER

The Gabriel Horn Mfg. Co., of Cleveland, O., is manufacturing the Foster shock absorber for motor car use. The absorber is a light vertical cylinder made of cold drawn seamless steel tubing and within it works



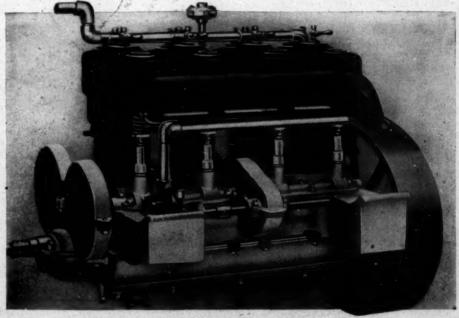
FOSTER SHOCK ABSORBER

a piston. The cylinder part is rigidly connected to the axle part of the car and the piston rod is united with the vehicle frame. Within the cylinder is a quantity of oil which absorbs the jar occasioned by a rapid jolt or a too quick rebound. The piston has a series of eight small holes by which the oil can pass from one end of the cylinder to the other or from one side to the other side of the piston. The action of the piston and oil is as follows: The sudden compression of the car springs forces the piston down against the oil and the small holes in the piston permit the oil to flow above the piston slowly, so that the piston with the car weight is partly cushioned on the oil beneath the piston. On the rebound the oil above the piston prevents a quick rise of the piston and the rise is correspondingly restricted according to the rate at which the oil can flow through the holes in the piston to the bottom part of the evlinder.

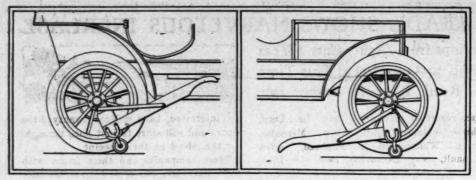
KIRKHAM MOTOR AND CLUTCH

Four-cylinder motors, with vertical cylinders, internal cone clutch and sliding gear transmissions are included in the motor car menu of the Kirkham Motor Mfg. Co., Bath, N. Y., for the approaching season. The motors have ratings varying from 12 to 24 horsepower and consist of three, four and six-cylinder types. To these can be added a small line of aircooled motors for motor cycles, with horsepower of 21/2 for the single-cylinder designs and 5 for the twin-cylinder variety. The motor car motors have ratings as follows: Three-cylinder, 12-14 horsepower; four-cylinder, 15-18 horsepower; fourcylinder, 18-22 horsepower, and six-cylinder, 24-30 horsepower. A description of the 18-22 will serve for the entire group.

This motor exemplifies accepted construction. In it the four cylinders are separate castings, each with its valve port on the left, its waterjacket and cylinderhead cast integral and finished inside by a grinding process. The bore measures 3% inches, the stroke is the same. With a speed flexibility with a minimum of 150 and a maximum of 1,600 revolutions per minute any speed can be obtained. The crankcase, a casting of aluminum alloy, is made in two parts-an upper and lower, with the dividing line horizontally in line with the crankshaft bearings. All motor weight is carried on the upper half which takes its support through two integral arms on either side. The lower part of the case serving as an oil basin, can be removed for inspection purposes, there being no side inspection plates provided. All four support arms are made hollow, with vent holes at the outer ends. castings are made from close grain iron of a claimed semi-steel nature. The valve pockets or ports on the right side have a decidedly square effect, a construction giving good size and not producing great width so the four cylinders, although separate castings, do not give an engine of great length. Making the valve ports small and carrying them close to the cylinder bore reduces materially the size of the



HAYNES 50-HORSEPOWER MOTOR WITH SEPARATELY-CAST CYLINDERS



MURRAY JACK AS USED FOR FRONT AND REAR WHEELS

combustion space in the valve port, leaving the actual explosion chamber practically all in the cylinder-head and giving it almost spherical shape. The inlets and exhausts, besides being side by side in the bottom of the ports, are made interchangeable and are opened through a set of vertical pushrods which get their lift from one camshaft. This shaft, with a diameter of % inch is made from high carbon steel and gets its support in three bronze bearings. It is driven through a steel cut gear with 1-inch face on the end of the crankshaft and meshes with a combination bronze and fiber gear on the camshaft. The cams, made from case-hardened machine steel, are held in place on the shaft by Woodruff keys and taper pins and are milled to an exact size.

The crankshaft, carried on five Parsons white brass bushings sweated in position, is a high carbon steel drop forging and on its rear end has the flywheel secured by taper and key. In supporting the shaft, the five bearings carried on the top part of the case are secured thereto by long bolts which extend through the top of the crankcase. The pistons, made of the same material as the cylinders, are of the straight side, flat top variety and have the wrist pins pinned to the piston journals. Wrist pins are of tool steel hardened and ground and the connecting rods steel forgings are fitted at the lower ends with Parsons white bronze bushings and carry ordinary bushings on top. Each piston carries four eccentric flat lap rings, three of which are above the wrist pin. fourth, placed near the bottom of the piston, aids in carrying the oil over the cylinder walls. Valve push rods are made from machine steel, case hardened and have wide bearings on the cams. Each has a small spring inside of the guide by which the rod is constantly kept in contact with its cam, thus avoiding the striking noises noticeable where the cam strikes the roller on the base of the push rod. The tops of the rods are adjustable

Ignition is by jump spark, with the plugs located above the inlet valves. The distributing commutator is on the top of a vertical shaft in front of the flywheel. The feature in the commutator in addition to its being oil-tight, is that all wire terminals are stationary, not being shifted when advancing or retarding the spark.

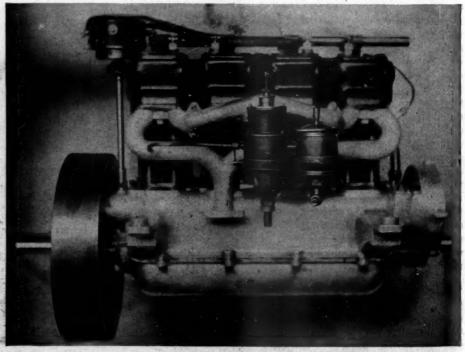
The primary contact is made with one pair of platinum points. The carbureter of the float feed self-adjusting type, is carried high on the left and connects with the cylinders through a double branching scheme and the exhaust pipes lower than and outside of the intakes, have the advantage of being well removed from the cylinders. Being located outside of the intake insures the latter against condensation of the mixture in cold weather. Nothing remarkable exists in the cooling scheme. The water pump is carried at the left front and is driven by a horizontal cross-shaft which takes its drive through bevels from the camshaft. In lubricating a large oil reservoir is placed alongside of the cylinders at the left. Exhaust pressure entering the tank at the top assures constant flow to the crankcase and cylinders.

The clutch fitted is of the internal cone type with broad leather-faced contacting surfaces. The clutch spring is entirely self-contained and rests in front against the flange on the flywheel web and in the rear takes its bearing on a ball-bearing plate which communicates with the shaft to the gearbox. The gearset affords three forward speeds, all gained through the use of one lever. On top speed the

drive is direct through a series of dental face teeth on the front sliding gear and the master gear on the clutchshaft. On all other speeds drive is to the countershaft and then back to the mainshaft. The use of ball bearings on both shafts is in keeping with this year's tendencies. Other points noted in connection with the gear box are the general use of aluminum, the carrying of the case on integral lugs and the use of top inspection caps.

MURRAY'S NEW JACK

Automobiles when standing in the garage for days at a time should be raised from the floor, thus taking the weight off the tires. For doing this the Bicycle Step-Ladder Co., a Chicago concern, manufactures jacks in sets of four, one jack for each wheel. The jacks consist of a short vertical piece mounted on a single wheel, the total length being slightly in excess of the height of the car axle. To this vertical part is attached, as shown in the illustration, a horizontal handle piece, with a brace to the small metal cap piece, adapted to engage with the hub of the wheel. This hub piece is placed against the hub part and a downward pressure on the handle causes a movement of the wheel carrying the jack towards the car axle, thus resulting in the automobile axle being elevated. The jack locks in an up position when the handle part rests on the garage floor. A set of four of these jacks is sufficient for elevating an entire car, no matter what its size is. In the illustration itis noted that the jack for the front wheel is set with the handle to the rear and that for the rear wheel is to the front, the object being the anchoring of the car against movement either to the front or rear. By this arrangement of the jacks the car can be left elevated if desired.



KIRKHAM FOUR-CYLINDER MOTOR WITH CYLINDERS CAST SEPARATELY

CUBAN AUTOMOBILE TRADE SHOWS MARVELOUS INCREASE

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Havana, Feb. 8-Since the southern racing circuit chasers were here 12 months ago the increased interest in automobiles, aroused by the first cup contest has borne fruit. There were but eighty cars in the city then; now the estimates of the garage keepers run from 200 to 237. A custom house inspector, who claims to speak by the books, however places the number as high as 325. Several factors have contributed to the growth of the motor car trade. In the first place, the extravagant praises of last year's race visitors, which got into local print and reached them through the Motor Age story of the first Cuban carnival, opened the eyes of the well-to-do Havanese to the magnificence of their roads and the wonderful motoring facilities at hand. The tobacco and sugar crops were large. The floating of the soldiers' claim loan gave those who had bought the veterans' serip at low prices plenty of money. The Havanese are a devil - may - care, sport - loving people, and they at once began to blow their money on luxuries, the most popular of which is the automobile. Live Americans and Cubans began to open garages and import American cars, which they offered at prices that suited the pocketbooks of the average well-to-do citizens, and now the United States is enjoying the cream of the trade, which a year ago was mainly confined to the importers of European cars.

Senor Lopez's Havana Automobile Co., the West Indies Transportation Co., and the Cuba Automobile Co. all have well-equipped, up-to-date garages. There are half a dozen or more other agencies. The dealers in town as far as your correspondent could learn in a hasty investigation are as follows:

The West Indies Transportation Co., Knox, White, Mitchell and Maxwell.

Havana Automobile Co., Locomobile, Columbia electric, and Fiat. The last named agency was placed by George P. Tangeman on this visit.

Cuba Automobile Co., Cadillac.

Jose Munoz, Darracq, Le Leon and Clement-Bayard.

Luis Drake, Mercedes.

J. M. Duenas, Winton.

McGill G. Mendoza, Panhard.

Walter Fletcher Smith, Oldsmobile.

A man seemingly familiar with the run of things a-motor in this Cuban metropolis

has figured out offhand twelve Knox, twenty-two White, three Mitchell, six Maxwell, eleven Locomobile, five Cadil-

Jumps from Eighty Cars a Year Ago to Over 200 at This Time — Road Race Is Responsible

lac, fourteen Mercedes, one Le Leon, three Clement-Bayard, six Mercedes, three Winton, three Panhard, seven Renault, one Decauville, one de Dietrich, sixteen Oldsmobiles, three Rambler, one Peerless, one Pierce, two C. G. V., one Northern, one Rochet-Schneider, one Pope-Toledo, one Pope-Tribune, one Franklin, one Packard and four Pope-Toledo cars in town. Of course the total of this offhand census will fall far short of the full number, but it may give some idea of the relative distribution of the different makes here. Some agencies have but recently been placed.

No review of Havana trade would be complete without special mention of the success of the West Indian Transportation Co. A. C. Barnhart is general manager, and H. B. Gretcheo, of New York, treasurer. Mr. Clothier, of Strawbridge & Clothier, of Philadelphia, is the largest stockholder. Thomas Malcolm, of Hartford, is also interested in the company. The capital of the company is \$125,000. As new cars are added to the plant more capital is paid in. The earnings have averaged 3 per cent per month on the proportion of the capital paid in.

At the present three eighteen-passenger 40 to 45-horsepower Knox buses are run between Marianao and Guanajay, 24 miles; and one between Guanajay and San Cristobal, 31 miles. A fourth car is kept in reserve. The run between Marianao and Guanajay is made in from 1½ to 2 hours, the fare being 60 cents. The opposition horse-drawn guaguas take 4 hours and charge 50 cents. Two trips a day are made. The Guanajay-San Christobal line has a monopoly and charges \$1 fare.

Two new twenty-eight-passenger 3-ton Knox buses are now in the custom house. They will be run between Guanajay and Mariel, 9 miles; and Guanajay and another town, 20 miles. Fifteen more of these 3-ton buses have been ordered and will be put in service as fast as received. The idea of the company is to create a motor bus line network among all the towns within a hundred miles of Havana, which have now either inadequate railroad service or only the slow-going guaguas as means of inter-transportation and which are generally unsatisfactory.

The Spanish-American Transportation Co., in which practically the same men



are interested, have ordered twenty 3-ton trucks and will start freight lines throughout the island on their receipt.

These companies had their origin with A. C. Barnhart, who came here at the time of the last carnival with two Knox buses and cleared \$50 a day with them in seeing Havana trips and later in regular passenger service between Marianao and Guanajay. The garage and agency before mentioned are a branch of the company's business.

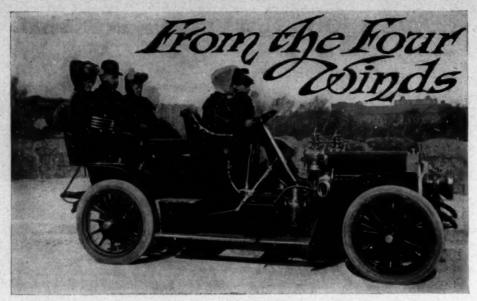
The Cuban Motor and Tally-Ho Co. have five big Mack Brothers' buses with stepladder seats which are devoted mainly to seeing Havana at an average charge of \$2 per passenger for a morning or afternoon ride. They were first put to regular line use between Marianao and Guanajay, but the seeing Havana business was found to be more profitable.

The dealers say that a big demand has developed for medium-priced cars and that it looks as though sales will only be limited by the number of deliveries that can be secured from the factories.

There is no doubt that there is a good market for cars in this city of 350,000 inhabitants which American makers cannot well afford to overlook, busy as they may be at home. A big real estate and business boom is on here. The city is growing rapidly. People are making fortunes in Cuba and seem to have money to burn for every kind of sport from jaialai and roulette to horse racing and automobiling. Burbridge and Considine have bought a big tract of land near Camp Columbia and will open a race course here next winter.

Horse-drawn vehicles are popular here, especially when it comes to the nightly procession which circles the Prado and Malecon. The wealth and beauty of the town are out, and it is gradually getting to be the real thing to take this trip in an automobile. A horse-drawn rig may be had for \$1.50 an hour, a cheaper rate than prevails in automobile circles, but everyone with social aspirations realizes that if they are going to be in the swim they will have to travel in a motor car, which means that the horse will be gradually forced into the background here as he has been in other countries, as the history of the industry shows. The pleasure-loving Cubans take this trip referred to, after which they hie to the Telegrafo and In-

> gleterra cafes and eat ices or sip cool drinks. Havana is a tropical Paris and this night seance is one of the features.



MISS EDITH MOSES, OF BOSTON, WHO LEARNED TO DRIVE BEFORE BUYING A LOCOMOBILE

Maxwell to Race—It is given out that the Maxwell-Briscoe people will build a Vanderbilt cup candidate.

Cup for Hill Climb—Automobilists of Wilkesbarre, Pa., having suggested the road up Wilkesbarre mountain as an ideal course for an international hill-climbing contest, the city has offered a cup valued at not less than \$500.

Santos Dumont to Drive—It is gossiped about in Paris that Santos Dumont, the aeronaut, will drive a car for Levavasseur in the Sarthe race and that the air king will have a machine fitted with a motor with from sixteen to twenty-four cylinders and which will develop 300 horsepower. At present he is working out in a 120-horsepower car.

Motor Cycle Race Date—It was intended to run the English eliminating tests for the international motor cycle Gordon Bennett race, which is this year to be held in South Bohemia, on June 29 as a kind of curtain raiser for the Tourist trophy race in May. The change of that date, however, will cause this to be run off as a separate event early in May in the Isle of Man. The entries for the international race have closed, and there will be only four competitors—Austria, England, France and Germany. Austria is expected to again provide the winner.

Memphis Has Hopes—On the question of "Will the automobile business in Memphis ever be worth bothering with?" the dealers of the city stand two yes and two no. Considering that Memphis is the largest inland cotton market in the world, the largest hardwood lumber market in the world and a few other things, and that money is plentiful, the fact that the combined sales of all the dealers last year was under ten cars gives food for reflection. The dealers at present are H. A. White, Cadillac and Pope Toledo; Frank Blomberg & Co., White, Thomas, Buick and Baker Electric; McDonald, undecided but

probably Ford, and Jerome Parker, Olds. Two other concerns are looking for locations.

Napiers in Grand Prix—Cecil Edge, Clifford Earp and Arthur Macdonald will probably drive the three Napier cars in the Sarthe circuit race.

Cars Provided For—A new automobile paddock is to be erected at the Saratoga race track this year. A. McL. Earlocker, the assistant secretary of the Saratoga association, has the plans on hand already, and operations will probably begin sometime in May.

After Motor Sledges—The Corbin company has been asked to undertake the manufacture of several motor sledges for the use of Walter Wellman in his attempt to reach the north pole, but it is not likely that the work will be taken up by the company, which is now taxed to its full capacity to supply the orders already booked for the season.

Must Carry Rear Light—Quite a number of Philadelphia automobilists having recently traversed the trap country at night without a rear lamp that would shed its rays on the rear tag, as required by the new state law, the commissioners of Lower Merion township, Montgomery county, have served notice through the sporting columns of the Quaker city dailies that arrests will follow further similar violations of the law.

Long Grind Over—R. M. Wright of England has completed his 5,000-mile test of a 10-12-horsepower four-cylinder Humber, it taking him 41 days to complete the trip. The car was dismantled at the finish and it was discovered that the majority of the working parts showed nothing more than a slight polish upon the surfaces and that the car was as good as new. It cost less than \$70 for gasoline for the trip. Eighteen gallons of lubricating oil were used. The total running expense figured up about 1 8-10 cents per

mile and the gasoline consumption averaged 19 miles per gallon.

Marriott from Needham—H. A. Crossman writes Motor Age that Fred H. Marriott, driver of the Stanley steamer at Ormond, is from Needham, Mass., not Newton, as had been stated.

More From Glidden—When last heard from Charles J. Glidden had driven across northern India, following the grand trunk road from Ganges to Calcutta, a distance of 4,405 miles, the longest journey ever made in a motor car in India. Up to that time Glidden had a mileage of 30,000 miles to his credit.

School in Smoky City—Pittsburg is to have a school for the training of chauffeurs. It will be established in the East End and its aim will be to provide efficient men to run, take care of, repair and have general management of the hundreds of automobiles in this city. The school will be run in connection with the Banker Brothers Co.'s garage.

Organize to Fight Bill—The nine automobile clubs of New Jersey have decided to make a strenuous fight on the Frelinghuysen bill, and while no definite plan of action has been mapped out the motorists have decided to hold a series of meetings previous to February 20, when the Frelinghuysen and Jackson bills will be given a hearing before the judiciary committee. William F. Sadler is at the head of the movement.

After Delinquents—As it is almost common talk that there are a large number of automobiles in Michigan which have so far evaded the state tax on the machines, the Michigan tax commission is making a strenuous effort to gather them into the fold. The commission has sent a list of machines owned to the assessors at all cities with a request that they be added to the list of taxable property of the owners of such machines.

New Class of Members—A number of new members has been elected to the Long Island Automobile Club since the first of the year, and provision has just been made for an associate membership list, to include motorists who live outside of New York state. Edwin Melvin has been appointed chairman of the house committee, Z. Nelson Allen of the garage committee and W. R. Richardson of the law committee.

Frown On Graft—Graft in one of its most insidious forms has wormed its way into the automobile trade of Pittsburg and local dealers propose to fight it hard and long. The Pittsburg chauffeurs are studying the tastes of their employers and reporting them daily to the big garages. When they find their employer desires a car they hasten to an agency and offer to work up a deal if the agents will give them a rakeoff of from \$100 to \$300. As a matter of fact three-fourths of these chauffeurs, who draw from \$100 to \$150 a

month, owe their positions to the big dealers and these men in turn are quietly organizing against this attempt to fleece.

Club in Hawaii—There are seventy members in the Automobile Club of Hawaii, recently formed, J. A. McCandless is president.

Motor Ski-ing—A new use has been discovered for the automobile in Austria, where one of the winter sports is ski-ing. It is no uncommon sight at Murzzuschlag to see a car whirling along a snow-covered road towing a man on ski, who enjoys the new pastime much as does a small boy hitching.

Test Doubtful—President Dave H. Morris, of the Automobile Club of America, says there is now some doubt whether the economy and endurance run projected for the club this spring will take place. Mr. Morris asked the members of the club to volunteer for duty as officials and observers, and says that he has received only eight or ten names. Mr. Morris says the club will not hold a run unless there is a more manifest interest in the run, on the part of the members of the club.

Chauffeurs Graduated—Twenty students were graduated last week from the New York School of Automobile Engineers, 158 West Fifty-sixth street. The school was opened early in December and the students who received their diplomas are members of the first class to complete the regular course of instruction. Since the opening five classes have been started, and these contain over seventy students. Of the graduated, eight will receive diplomas entitling them to first-class certificates.

Ardennes Circuit in Doubt—No arrangements have as yet been made for the Ardennes circuit race by the Belgian Automobile Club. Bastogne and Arlon are both striving for the race, which heretofore has been made over the Bastogne circuit, but there has been considerable complaint over the accommodations, so along comes Arlon as an alternative, with plenty of hotel accommodations at Arlon as well as Luxemburg. A minor race has been run over this circuit, which is a triffe shorter than the Bastogne.

Cleveland Show Plans-The Cleveland Automobile Dealers' Association, which is promoting the fourth annual Cleveland show, has succeeded in interesting a great number of out-of-town automobilists in the exhibition which opens at Central armory next week. A number of manufacturers who will be there are not exhibiting in Detroit this week and their exhibits are coming direct from Chicago, while the local manufacturers will have cars direct from the factories without waiting for the return of exhibits from Detroit. so that it is pretty certain that exhibits will be in place and completed considerably earlier than at previous Cleveland shows, which have been held up because there was so little time for preparation

between the closing of the show the week before and the opening of the Cleveland event.

In Winton Museum—The three Winton Bullets have been retired from the racing game altogether and are now in the museum at the Winton factory along with the single-cylinder cars first put out by Winton.

Non-Stoppers—J. W. Stocks in a 24-horsepower de Dion, and Charles Jarrott, in a 22-28-horsepower Crossley, recently made non-stop runs from London to Edinburgh, being 20 hours on the road and finishing within 5 minutes of their schedule. Jarrott's car was fitted with Continental tires.

Learns First—Miss Edith Moses, of Boston, is a wise young woman. She decided to take up motoring, but before she did so she took a course of instruction in an automobile school, so that she would know something about a car before purchasing a 30-35-horsepower Locomobile. It is most often the case that the prospective owner first buys his car and then learns to drive it.

Herkomer Details-At the dinner of the Imperial Automobile Club in honor of the birthday of Emperor William it was announced by Dr. Lewin Stoepling, who represented the club at the Herkomer meeting in Vienna, that the management of the competition is entrusted to the Imperial, Austrian and Bavarian automobile clubs, which have appointed committees for the purpose. The competition is an international one and is open to automobiles of all kinds from 16 horsepower and upwards. The automobiles must be the private property of the persons competing, who in their turn must be members of a recognized automobile club. The automobiles must satisfy all the requirements expected in a first-class touring automobile and must be fitted with at least four seats, bonnet, mudguards for the front and rear wheels, three lanterns, two brakes and the other car essentials.

Virginians Organize—The Valley Motor Club of Virginia has elected the following officers: President, Joseph S. Cochran; vice-president, Julius L. Witz; secretary, E. R. Ermentrout; treasurer, Frank T. Holt.

Skeptical John Bull—One of the English motoring papers questions the veracity of the report of the 100-mile race at Ormond, won by Earp and in which the Briton drove 65 miles with only three tires, adding: "Either the Florida sea air makes the pulses of the timekeepers' watches beat furiously or it gets into the heads of special correspondents and makes them write fairy stories."

Challenge from Edge—So strong an advocate of six-cylinder engines is S. F. Edge, the English maker, that he has challenged Captain Deasy to a long-distance trial on the continent for the purpose of proving the superiority of the six-cylinder motor. Captain Deasy, who is about to become an automobile manufacturer, will drive a four-cylinder, the trip being proposed with the idea of converting him to Edge's belief.

Horse Motor Goes Wrong—A Philadelphia automobile repairer was stranded in Reading and in an effort to reach home stole a horse and buggy! He got no further than Pottstown, when something happened to his equine motor. He tried to repair it, but couldn't; whereupon he tried to sell the rig at a ridiculously low price. Suspicions having been aroused, he was pinched and is now languishing in the Pottstown jail. If he had been a blacksmith he might have been home now.



SKI-ING IN TOW OF A FAST MOTOR CYCLE OVER AUSTRIAN SNOWS



LOSING AIR PAST RINGS

Monroe, Wis.—Editor Motor Age—I have been running a single-cylinder car since last June. Is it customary with all motors that in cranking over the compression they blow more or less air into the crankcase, or it it because the cylinder or piston is worn? If so, is it necesary to replace with new parts? Kindly inform me through the Readers' Clearing House.—W. C. B.

The trouble is probably due to some fault with the piston rings. Do not make the mistake of thinking the piston is a prominent element in holding compression. If one should look over many well-knwn French motors he would probably be surprised to learn how loosely the pistons fit the cylinders. Look to the piston rings. The life may be all out of them, so that they do not fill out; they may be badly worn on one side, or the entire trouble may come because the split in each is a diagonal one and the splits in all the rings are in line. Take off the cylinder very carefully and see if this is not the cause of your trouble.

VERY LIGHT MOTORS

Milwaukee, Wis.—Editor Motor Age—I was told that a French inventor had designed an engine whose horsepower was equal to its weight in pounds. Have you heard of this engine, and if so, will you give me his name and address. I am looking for a very light high-power engine, and any information you can give me as to the best place to look for an engine of this kind will be much appreciated.—W. T. REED.

There have been claims made for a motor whose horsepower is equal to its weight, but at present there seems to be none upon the market. Motor Age will gladly publish any information it receives on this subject.

CYLINDER WATER JACKETS

Jackson, Mich.—Editor Motor Age—1am employed with a large automobile concern which has put me on experimental work
with the water cooling system of its engine.
The motor has been heating. It will be a
great thing for me to be able to solve the
problem, and I write you for information
and reference to a good book on the subject. What kind of pump is best for this
motor? What should be the force, volume,
speed; also size and efficiency of the radiator? What should be the temperature of
time water during ordinary work and during

strenuous work on the engine in motion on low and on high speds? The cylinders are 4½ by 5 inches, capable of 1,600 revolutions.—H. W. F.

The subject of water cooling has been given much attention by many automobile engineers and by technical journals. Each individual case must be dealt with according to circumstances. There is no reference book devoted to this subject exclusively. The ordinary centrifugal pump is extensively used and seems to give satisfaction. The force, volume and speed depend largely upon the design of the cylinders. If the water jacket is designed so as to leave no steam pockets in the cylinder, the water will have free circulation, so a smaller quantity of water may be used than ordinarily. With the water jacket space about an eighth of the diameter of the cylinder, and radiator of a capacity to give the total water supply from 5 to 18 gallons, pumped through about %-inch pipe, with the pump speed twice that of the motor, good results should be obtained. Ten gallons of water may be used with a radiator of small cooling area and not prove satisfactory, while 7 gallons may be used with a radiator of large cooling area, thus pumping a smaller quantity of water through a larger area and cooling it better than in the former case. Under ordinary circumstances the temperature of the water should be kept down to about 150 degrees Fahrenheit.

FAN SPEED

Mound City, S. D.—Editor Motor Age—Kindly inform me through the Readers' Clearing House the rate of speed an 8-inch fan should run to cool an air-cooled cylinder 3 by 3½ inches when running at 1,200 revolutions, when the temperature is 90 de-



How PISTON RINGS BECOME MISPLACED

grees and also when at 0 degrees .- J. M. H_

A positive answer to this query cannot be made, because there are many other factors besides those given which must be taken into account. Further, the entire subject has only just entered into the field of research, and those who have so far conducted it are not giving out the results. of whatever tests they have carried out. The most definite knowledge obtainable is in connection with the Frayer-Miller method of cooling. In this case it is figured that 50 cubic feet of air per minute per horsepower is required. But this is. under definite conditions of design all through. It takes into consideration not merely the horsepower rating, which can be arrived at from the questioner's figures, but also the position of the motor, design and size of the pins cast in the outer walls of the cylinder and many other factors. One must take into consideration the position of the fan, shape and angle of the blades and whether the air is carried direct to the cylinder. No hard and fast rule could be laid down to give best results; these could be arrived at only by trying out many tests.

MOTORS FOR STREET CARS

Spirit Lake, Ia.—Editor Motor Age—I am much interested in the automobile proposition and know no reason why this motor power cannot be utilized in ordinary street car work, and with that thought in mind I am contemplating such use. Please give such information as you have at hand as to where the gasoline motor has been used in such work.—L. E. Francis.

Experiments have been going on in different parts of the country for a number of years, and recently a gasoline motor-driven street car was run under its own power from Kansas City to Texas. At present the matter is in a more or less experimental stage. Motor Age has, from time to time, given information about such experiments and will continue to do so as developments are made.

GARAGE FLOOR MATERIAL

Monte Vista, Cal.—Editor Motor Age— What is the best and cheapest material with which to build the floor of a garage?— C. B. S.

The floors in most the modern garages are made of a foundation of concrete and a top dressing of cement, with a depressed center for drainage purposes and for wash rack. Any cement-laying contractor can lay such a floor. A cement floor is quite as cheap, in the long run, as any other, is more cleanly and eliminates danger from fire to a large extent.

RUBBER SOLVENT

Detroit, Mich.—Editor Motor Age—Please state through the Readers' Clearing House what kind of acid is used in connection with rubber cement to vulcanize rubber.—J. C. M.

Reference is probably made to the solvent used, which is carbon bisulphide.

BRIEF BUSINESS ANNOUNCEMENTS

BELERACE HEE

Boston—The J. W. Maguire Co., of Boylston street, has taken the agency for the Baker electric.

Boston—The garage and repair shop of the Pope Mfg. Co., which suffered from fire on January 10, has been thoroughly renovated.

New York—George Banker has joined the forces of the Peerless company, and in all probability will be in charge of the supply and accessories department.

Boston—L. B. Butler, who has the New England agency for the Cleveland and Pierce-Racine, has closed a deal for the same territory for the Rapid commercial truck.

Boston—Another new agency will be opened here shortly. Charles Haigh, formerly with A. T. Fuller, has taken the agency for the Northern, and will open a salesroom in the Motor Mart.

Pittsburg—A meeting of the stockholders of the Stanford Automobile Co. has been called for the purpose of voting an increase of capital stock from \$75,000 to \$125,000. The meeting is scheduled for January 18.

Wilmington, Del.—The Mexican Automobile Mfg. Co. has been chartered to manufacture and deal in engines, motors and automatic vehicles of all kinds. The incorporators are all of New York City and the capital stock is \$100,000.

Boston—F. E. Dayton, of Hartford, Conn., has been appointed local manager of the branch of the Electric Vehicle Co., at 74 Stanhope street. Dayton succeeds W. W. Burke, who was made New York manager of the company some time ago.

Buffalo—Dodge Brothers have secured an option on the property at 104-106 Brush avenue. It is given on good authority that they intend building an automobile plant within the year. They now hold options or own outright considerable property in the vicinity.

Des Moines, Ia.—The Motor Components Co., recently organized here, and which took over the old plant in Milford, Conn., has closed a contract for the erection of a new plant on West Locust street. The building will be built by F. M. Hubbell on property which he owns, and will be taken over by the company under a long term lease.

New York—Among the last of the automobile companies to move from the old center at Thirty-eighth street and Broadway to the new automobile district from Fifty-fourth to Sixty-third street is Homan & Schulz. In a couple of weeks this concern will be located in its new home on the south side of Sixty-second street. This is a five-story building, with a frontage of 40 feet and a depth of 100

feet. It will be devoted exclusively to the makes of cars handled by the company, the National, Rambler and Marion.

New York—The Swinehart Clincher Tire Co., formerly of 1773 Broadway, has removed its New York branch to 1843 Broadway. E. A. Hoopengarner is the manager of the branch.

Utica, N. Y.—The Baker Motor Vehicle Co. have made arrangements with the Utica Motor Co. by which the latter is to handle the former's electric vehicles in Utica and the surrounding territory.

Los Angeles, Cal.—J. A. Clairmonte has secured the agency for the English and American Napier cars, covering the southern California territory. A garage and wareroom will be erected on Spring and Seventh streets.

New York—George Lamberty, well known in local automobile circles, and at present treasurer of the New York Motor Car Co., is soon to take up his residence in Boston, assuming the management in that city of the branch of Leon Rubay.

Baltimore—Work will be started shortly on the large garage and carriage house to be erected by Augustus Fenneman, at Halstead's, on Park Avenue Heights. The structure will be one and a half stories and will have a floor space of 100 by 25 feet. It will have a capacity of about 100 automobiles and will be lighted by elec-



LATE INCORPORATIONS

Albany, N. Y.—The Arc Spark Mfg. Co. has been incorporated with capital stock of \$10.000 to manufacture automobile sparking plugs.

Owosso, Mich.—The Salisbury Tire Co. has been incorporated with a capital stock of \$100.000.

Alexandria, Va.—The Commercial Automobile and Supply Co. has been incorporated with a capital stock of \$20,000, to deal in automobiles.

Rochester, N. Y.—The Horton Boats, Inc., has been incorporated with a capital stock of \$1,000, to manufacture marine and stationary engines, boats and engine supplies, etc.

New York—The Rossel Co. of America has been incorporated with a capital stock of \$100.000 to manufacture motors, engines, etc.

Buffalo—The James MacNaughton Co. has been incorporated with a capital stock of \$100,000 and will manufacture engines and motors.

Boston—The Comfort Auto Sight Seeing Co. has been incorporated with a capital stock of \$40,000 to deal in automobiles.

Boston—The Bay State Auto Co. has been incorporated with a capital stock of \$10,000 to deal in automobiles, etc.

Boston—The Curtis-Hawkins Co. has been incorporated to deal in automobiles. The capital stock of the company is \$3,000.

capital stock of the company is \$3,000.

New York—The Downtown Garage and Automobile Repair Co. has been incorporated with a capital stock of \$10,000.

with a capital stock of \$10,000.

New York—Among recent incorporations is that of the Western Launch and Motor Co. with a capital stock of \$100,000.

Salt Lake City, Utah—The Sharman-Ottinger Automobile Co. has been incorporated with a capital stock of \$25,000.

tricity. There will be one main entrance, with two additional entrances.

Binghamton, N. Y.—Work has been begun on the new building for the Binghamton Metor Car Co.

Earlville, Ill.—L. J. Taylor and Jay Barnard have formed a partnership and have taken the agencies for the Reo and Premier.

Philadelphia—John D. Lingle, of Wayne, has been awarded the contract for the erection of the \$10,000 garage to be built at Ardmore.

Springfield, Mass.—Woodward & Reopell have opened their new central garage at 18-20 Fort street. This company is the local agent for the Lambert.

Kansas City, Mo.—The Kansas City Motor Car Co. is erecting a new plant east of the Blue River. Natural gas is to be used for heating and also for power purposes.

Jackson, Mich.—D. M. Dearing and P. B. White, of this city, have organized a company to manufacture children's automobiles. The factory will be located at Leslie, Mich.

New York—The Ardsley Co., of Yonkers, N. Y., has reopened its New York branch at the corner of Broadway and Fiftieth street under its own management. H. M. Wise is the manager of the local branch.

New York—Manager C. B. Rice, of the Baker Electric Co., has just completed moving into his new garage at Eighth avenue and Fifty-sixth street. Alterations will commence at once on the show and sales rooms at Broadway and Fifty-eighth street.

New York—A new concern has been started in Havana which handles the Rambler and Ford and does a large renting business. In the concern are Louis Berg, formerly with the John Wanamaker automobile department in New York; Fabio Seigardi, formerly with the Compound people; J. F. Padelford and H. A. Padelford.

Boston—E. A. Gilmore is making extensive changes in his garage and machine shop. The machine shop, which has been located in the basement of the Columbus avenue store, is being removed to a new section of the Park Square station, which has been leased, and the space beneath the store will be used as a stock and shipping room.

New Haven, Conn.—The C. S. Johnston Co. has purchased the lot adjacent to the University garage on St. John street and will build out to Olive street, increasing its present large plant. The company is now the selling agent for the Pope-Toledo, and has also secured the agency for the Mercedes. In addition to these he handles the Knox and Stevens-Duryea.



A BUNCH OF PACKARD RUNABOUTS JUST READY FOR SHIPMENT

Has the Napier—One of the foreign cars handled in Cleveland is the Napier, agency for which has been taken by Francis E. Drake.

Banker Show—The automobile show of Banker Brothers Co. opened February 12 at its new downtown garage at 239 Diamond street, Pittsburg. There are exhibited the cars from the New York and Chicago shows.

Change Made—The Olds Gasoline Works, of Lansing, Mich., has filed amendments to its articles of incorporation with the secretary of state at Lansing changing the name to the Olds Gas Power Co. and increasing the capital stock from \$500,000 to \$612,000 to provide for the purchase of the American Suction Gas Producer Co.

Enterprising—The H. J. Willard Co., of Portland, Me., has established an automobile school in connection with its agency for the Packard, Peerless, Winton, Franklin, Cadillac, Buick and Elmore. There's nothing strange about that. The real feature of the statement comes in the announcement that the company will refund the tuition fee to any of the pupils buying a car afterwards.

Modern Tool Chests-As showing the refinement in details of construction of modern cars, the Locomobile people have taken photographs of the case for tools and extra oils which is carried under the rear of the tonneau of the 1906 Locomobile. One picture shows the tool case as it is placed on the car, the hinged vertical cover, however, being removed to give an idea of the interior. At the left are three trays with a compartment underneath them, and at the right are four oil canstwo for engine oil and transmission compound, and two others for hard grease and soft grease, respectively. In the other picture are shown the trays removed to give an idea of the manner in which the wood is cut away to make place for the various tools so that each will fit its proper place. With the equipment are a jack, a tire pump, hammer, etc. There is also a

long rod to enable the driver to open the pet-cocks underneath the engine base conveniently so as to test the level of oil in the crankcase.

New Rubay Branch—Leon Rubay will open a branch in Boston. He has been appointed sole agent for Michelin tires in the New England states.

Starts Suits—The Electric Storage Battery Co. has filed papers in a suit against the Universal Storage Battery Co., manufacturer of the Morrison battery, claiming \$50,000 damages for infringing in the construction of the Universal plate, the Knowles patent, owned by the Electric Storage Battery Co. Suit has been brought in Wilmington, Del., the Universal Storage Battery Co. being a Delaware corporation.

Adds Queen—The Hamilton Auto Co., of Philadelphia, which handles the Corbin and Stoddard-Dayton, has secured the agency for the Queen in the territory in and around the Quaker city. Determined to get a 1906 Corbin for demonstrating purposes, Dr. Hamilton, head of the concern, last week went to the factory at New Britain, Conn., and drove the car all the way home, in zero weather and over execrable roads, without a mishap.

Wheel Plant Running—The new wheel manufacturing plant of the W. K. Prudden Co., of Lansing, Mich., is now in operation. It is thoroughly fireproof, the Kahn steel reinforced concrete system having been used in its construction. Nowhere in the building is wood used except for window sashes and finishing for the offices. In dimensions the building is 60 by 225 feet. On the first floor are the paint shop, blacksmith shop, machine shop, and dry kilns, all branching off a large room where the wheels are assembled. Second growth hickory is used exclusively in the building of automobile wheels of



this firm. The factory has a capacity of 150 sets, or 600 wheels per day. W. K. Prudden is president of the company, A. C. Stebbins vice president, H. F. Harber secretary and J. Edward Roe treasurer.

Leaves Pope—R. M. Barwise, formerly with the Pope company, is now representing the Evansville Battery & Electric Co. in the east, with his office at 1693 Broadway, New York.

Runabouts Popular—While fixing up their show exhibits the Packard people seized the opportunity to run three of their standard runabouts on the road in front of a camera. The result was a pleasing one.

Get Foreign Car—Connors & Gilmore have leased the southwest corner of Broad and Vine streets, Philadelphia, for an automobile salesrooms. They have secured the local agency for the Rochet-Schneider car and will, besides, represent several well-known specialties.

Big Garage—Springfield, Ill., has under the course of construction a large garage which is to be constructed of stone three stories high, 80 by 160 feet, with an electric elevator, pits, washstands, turn-tables and all other modern conveniences, including complete machine shop and stock room, which will cost when completed \$60,000. The company operating the garage will be known as the Illinois Auto Mfg. & Garage Co.

Renault Case—The question of the Renault drive patent does not arouse much discussion in Paris, although French constructors pay royalties to the Renault firm amounting to some \$100,000 per annum, yet the amounts are very evenly spread and the uncertainties regarding a law-suit and the delays attending one are such that no individual firm cares about testing the validity of the patents. It may be, however, that some united action may follow the meetings of French makers to consider the present situation.

Radiator Test-On exhibition at the recent Chicago show were two mud-caked cars, one of them the Haynes J. W. Haynes drove from Chicago to New York, and the other the Herrick Peerless which had just completed its 1,000-mile non-stop run. Those who carefully inspected these cars remarked that the radiators on the two were of the same make, the product of the Briscoe Mfg. Co. It was announced by both the Haynes and Peerless people that they had experienced no trouble with the radiators, although the Peerless had run into a barbed wire fence in the night. This accident caused a gash to be cut in the casing, but not a drop of water escaped. Another thing remarked was that when the engine was kept running in the garage for a week after the road test the radiator fan kept the circulating water down within practical working limits despite the fact it did not have the advantage of motion through air. The Haynes radiator is

of the Briscoe multiple element honeycomb construction, in which all the radiating surface is direct, while on the Peerless there is the flat-tube type, with gang fins extending from front to rear and flat return bends within the easings.

Job for Johns—George C. Johns, formerly with the Haynes-Apperson and later with the International Automobile & Vehicle Tire Co., has been appointed sales manager of the Moon Motor Car Co., of St. Louis.

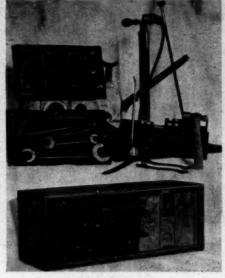
Increases Stock—The capital stock of the Long Mfg. Co., of Chicago, has been increased to \$100,000. Because of the heavy orders it is reported that the Long plant at Chicago and the establishment of the Long-Turney Mfg. Co. at Rome, N. Y., are running night and day turning out spiral tubing radiators.

In New Plant—The Baker Motor Vehicle Co., of Cleveland, has just moved into its new factory at Edgewater Park. The new plant consists of a large main building three stories in height, which will contain offices, drafting and shipping rooms, stock rooms, etc. The factory proper is a one-story building covering several acres of ground. The plant was designed and equipped throughout for the manufacture of Baker electrics.

Wayne Agencies—The Troy Carriage Works will represent the Wayne Automobile Co. in Troy, N. Y., and vicinity. The Commercial Automobile Storage & Supply Co., 1715 Thirteenth street, N. W., Washington, D. C., has been incorporated to represent the Wayne in the District of Columbia and the state of Maryland. The Beard Automobile Co., 311 Wabasha, St. Paul, Minn., has secured the agency for the Wayne in lower Minnesota.

White's New Factory—Work on the new factory for the White Sewing Machine Co., which has been talked of for some months, will be started in the near future. George Smith, a prominent architect, has completed the plans for several of the buildings and contracts have already been awarded for the structural work and foundations. It is stated that the first buildings will cost \$200,000, but eventually the plant and equipment will run up close to the million mark. The plant will be located on St. Clair street, a short distance from Gordon Park,

Will Consolidate Plants—A. L. Garford, president of the Garford company, the automobile and parts manufacturing concern which has its manufactory in Cleveland with another factory and headquarters in the neighboring city of Elyria, has announced to the board of trade of that city that the two plants are soon to be consolidated and that a large amount will be spent in additional buildings and equipment. It is possible that the new plant will go to Elyria, but it is more than probable that Cleveland will get the plum. At present the Cleveland plant employs 400 men and the Elyria plant about 250 men.



LOCOMOBILE TOOL KIT

Mr. Garford announces that the new consolidated plant will employ at least 1,500 men.

Tire Move—Lack of room has necessitated the removal of the Philadelphia branch of the Michelin Tire Co. from 322 North Broad street to 1437 Vine street. J. L. Keir is the manager.

Clearing House Established—G. H. Stilwell, of the H. H. Franklin company; W. E. Metzger, of the Cadillac company, and C. A. Wardle, of New York, are the incorporators of the Inter-State Automobile Clearing Co., which has just been chartered in New York to deal in second-hand cars.

Under a New Name—An old concern under a new name is the Auto Shop Co. incorporated in Cleveland by C. F. Shroeder, Ira B. Sperry, A. L. Maure, Walter F. Schroeder, Carl F. Schroeder and Milton Lusk. The company has heretofore been known as the Ohio Oldsmobile Co. and it conducts a fine establishment on Vincent street back of the Hollenden hotel. For a number of years the company handled the Olds exclusively but lately it has been pushing the Thomas and Franklin in addition to the Olds. New money has come into the concern but the management remains practically as heretofore with R. R. Owen.

Tries Cars—The McGeorge Mfg. Co., of Cleveland, which heretofore has built and handled light tools and done experimental work for automobile makers, is now handling the Maxwell-Briscoe car.

Reo Physician's Rig—The Reo people are out with a new model two-cylinder 16-horsepower physician's vehicle which is equipped with the same engine as the five-passenger Reo light touring car and the ten-passenger Reo wagonette. This model is designed for the average physician, as well as business and professional men. It may be converted in a few moments into a light touring car, accommodating five passengers comfortably.

Olds Increases Stock—The Olds Motor Works, of Lansing, Mich., has increased its capital stock from \$500,000 to \$612,000. It was stated at the annual meeting of the board of directors, at which this action was taken, that last year's business would be doubled in 1906. The Olds Gas Engine Works and the American Suction Gas Producer Co., two independent concerns whose stockholders are also interested in the automobile company, have been combined and will be known as the Olds Gas Power Co., of that city.

Up to Date—The Eastern Automobile Co., which handles the Peerless in Philadelphia, is engaged in enlarging its salesrooms and garage, and when the changes are made it will be one of the largest establishments of the kind in the city, if not in the east. With 150 feet frontage on Broad street, the garage, exclusive of salesrooms, will have upward of 5,000 square feet of space for the storage of cars—all on the street level. An enlarged repair shop and a chauffeurs' room are included in the conveniences of this up-to-date Quaker city establishment.



BIG ASSEMBLING DEPARTMENT OF THE WINTON COMPANY DURING NOON HOUR



"ROADSIDE TROUBLES"

Several thousand copies of Mr. Duryea's little handbook have been recived from the bindery and the balance will be delivered at headquarters during the present week. Four hundred copies were handed to new members who joined the league during show week at Chicago, but no greater supply being on hand the secretary was compelled to stop distributing copies on Thursday afternoon and to advise all members whose names were thereafter enrolled that their books would be mailed from New York. This will be promptly done, and at the same time all other members will receive their copies in the same way.

Why should not every member of the league show this excellent little book to his friends as evidence of the league's usefulness, and urge them to join the organization? Other benefits will follow, increasing in number and substance as the league grows and prospers. To secure this growth is not the work of one member, nor of a hundred; it is a work in which all should be proud to engage, and when so undertaken it becomes easy and its success is doubly assured.

SALE OF BOOKS

Many inquiries are received from dealers and others, who wish to purchase copies of "Roadside Troubles" for their own use or for sale to customers. The sale price of this book is \$1 per copy, and. descriptive circulars with full information will be sent by the secretary to any inquirer. It is not the purpose of the league to extensively advertise and push the sale of these books. They were prepared and published for the use of A. M. L. members and will be used mainly for free distribution among those persons whose names appear on the roll at the time of publication and thereafter until further notice. There is, however, an outside demand for these books and to meet this demand a special limited edition will be placed on sale.

MEMBERSHIP CARDS

The new membership cards for 1906-1907 are now secured at headquarters and are being mailed by the secretary. During the last 5 weeks the work of the office has been so congested that it became necessary to issue a temporary card to

each member joining or renewing. Each of these members will now receive his regular card, correctly numbered, and the attention of all members is directed to the printed paragraphs on the back of each card. It is important to remember that each member must present his card at all times when dealing with proprietors of official stations, in order to secure the discount allowed to league members. Each station proprietor is under contract to allow these discounts to A. M. L. members only on presentation of unexpired membership ticket. Official appointments are promptly canceled in all cases where this contract is violated.

OFFICIAL STATIONS

During the week of the Chicago show many inquiries were made of the secretary respecting the appointment of official A. M. L. stations. Similar inquiries are received from week to week at national headquarters. This subject is fully covered by printed matter prepared for that purpose and circulars and blanks will be sent by the secretary to any applicant. In each town of moderate size only one official station will be appointed. Each application is referred to an appropriate committee and appointments are made only on approval.

THAT MISUNDERSTANDING

A horse may be led to water but he cannot be made to drink. Sixty-eight thousand circular letters were sent by the secretary to the automobilists of this

DANGER

country, explaining in the clearest and most explicit way the plan for reduced rates to Chicago during show week, and stating that these rates were for league members only. Local railroad agents then began to assure their friends and neighbors that these reduced rates were granted to all who attended the automobile show. It is charitable to suppose that the agents had not read their printed instructionsand that the automobilists had not read the circular information sent them by the league. In either case the league is not to blame. It went to a large expense and devoted much labor to the end that its members might receive these benefits and it saved to these members thousands of dollars in railroad fares which under other conditions they would have had to pay. Under these circumstances the secretary extended to all visitors the same benefits and privileges accorded to members of the organization, subject only to the same rules.

The railroad associations exact from the league a written agreement that the A. M. L. will make good for every railroad ticket purchased under the reduced rate concession and afterward found in the hands of a scalper or broker. With this contract in view the secretary refused to validate many hundreds of certificates held by persons who were not members of the organization and will so continue to refuse at all times in the future.

ARE YOU A MEMBER?

Every motor car user should be a member of the A. M. L. It is the only automobiling organization that is built upon out-and-out national lines; it is an organization of the individual and for the individual. It has a great amount of work that is being performed and a still greater amount laid out-all to result beneficially for not only members of the league but all motorists. It is an organization worthy the membership and support of every motorist, whether it gives each motorist something in return or not; but it goes farther than this-it gives its members \$10 of value for every \$1 received, so that outside of being of general benefit it provides a safe and profitable investment to the motorist that has his own best interest at heart. Printed information and membership blanks sent on request by the secretary, Vanderbilt building, New York.